

VOL. XVIII.

PROGRESS REPORT

ON THE

FOREST ADMINISTRATION

OF THE

MARWAR STATE

(RĀJPUTANA.)



FOR THE YEAR

1916-17

(ENDING ON 30th SEPTEMBER 1917)

BY

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JODHPUR.
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**Review of the Report on Forest Administration of the Marwar State
for 1916-17.**

FORESTS.—The area under forests remains unaltered since last 2 years and stands classed as follows:—

Protected Forests, Khalsa	...	291.42 Sq. Miles.
" Jagir	...	114.13 "
		405.55 Sq. Miles.

Unclassed Forests, Khalsa	...	22.61 " "
" " Jagir	...	19.30 " "
		447.46 " "

The Superintendent reports that for certain reasons-economical and administrative- the tentative formation of Forest Divisions reported in last year has been abolished and the old system of working by ranges as units reverted to in compliance with the order of the Mehkma Khas dated the 28th August 1917.

BOUNDARY WORK.—99 Pacca pillars were constructed to replace old Katcha-ones in Sojat range at a cost of rupees 129.14. 82 chains of the outer boundary line in Bali and Sojat ranges were cleared. The Boundary Record of Khoria, Kantalia, Kot and Bagole blocks was prepared by the Survey party covering a length of 745 miles.

SURVEY & SETTLEMENT.—A detailed survey of Khoria, Kot and Bagole blocks was made by the Forest Survey Party and 100 copies of the Maps of each of these blocks were printed by the Photo Zincograph process at the Roorkee College Press.

WORKING PLANS.—The collection of data for working plans of the Bada-Gudha and Khoria Blocks is fairly progressing.

The revised working plan of the whole of the Aravelli Forests is being gradually put in force and Coppice Coupes were leased to contractors for felling at an average rate of Rs. 5/- per acre.

The cost of survey and working plans came to be Rs. 2, 236/-

FOREST OFFENCES.—The total number of such offences was 599 as against 648 in the previous year—586 in Khalsa and 13 in Jagir Forests. All of them were compounded except 3 which were sent to the Courts.

CATTLE POUNDS.—There are cattle pounds in charge of this department in which 5,298 heads of cattle were impounded in the year under report. The total income from this source was Rs. 2,447/- and expenditure Rs. 664/-.

GRASS AND GRAZING.—38,308 cattle in the Khalsa and 11,746 in Jagir Forests were admitted for grazing as against 85,227 and 11,897 respectively last year.

The grass cut during the year for storage was 11,878 maunds and 5 srs. of which 182 mds. 25 srs. was sold and 852 mds. 18 srs. was departmentally used for silage, &c. The balance in hand together with the previous stock was 11,801 mds. 35 srs.

PROTECTION FROM FIRE.—No case of fire occurred in the Forest during the year under report.

Financial results.—The following scale shows the revenue and expenditure of the Forest Department:—

KHALSA.	1916-17	1915-16
Revenue ...	... Rs. 106,707/-	97,757/-
Expenditure ...	... <u>Rs. 58,200/-</u>	<u>70,884/-</u>
Surplus ...	... <u>Rs. 48,507/-</u>	<u>26,876/-</u>

The compensation paid to Jagirdars was Rs. 1,507/-

JAGIR.	1916-17	1915-16
Revenue ...	... 7,517	4,700/-
Expenditure ...	... <u>3,226/-</u>	<u>2,059/-</u>
Surplus ...	... <u>4,291/-</u>	<u>2,641/-</u>

ARBORICULTURE.—8,053 new plants were added, making a total of 34,817 both in the Districts and Head-Quarters, with following figures for expenditure and revenue:—

	1916-17	1915-16
Expenditure ...	... 12,452/-	15,116
Revenue ...	... 1,472/-	1,647/-

EXPERIMENTAL FARMS.—The Agricultural Experimental Farm at Jagatsagar, under the management of the Forest Department suffered more or less damage during the unusual rainfall. The expenditure on account of the Farm was Rs. 8,627/- and the revenue Rs. 1,827/-

GEOLOGY.—The Wolfram Mines at Degana turned 52 tons and 18 cwt. 1 qrs. 26 lbs. of ore, yielding Rs. 10,084 as royalty to the State. The Graphite Mines of Bar, Hirawas and Pokarn-ki-nadi were provisionally given over to Messrs. Sorabji Dadabhoy of Ajmer for the working at 42% of the realised value; while Selenite, Gypsum, red and yellow Ochres and white Kaolin of the Barmer Region were leased to Messrs. Ramanayyan 'Bansi Lal for Rs. 1,025 per annum. ”

The contract for exporting red-mottled granite from the Jasai quarry to Karachi was given to Abdul Rahim of Jodhpur at 2 pies per maund as Royalty. 16 wagons of it was removed yielding Rs. 50-10-0. The Mica deposits of Behra Forests were leased out to Tarachand of Bijapur, Pergana Bali for Rs. 25/- per annum.

The coloured marble quarries of Raipur and Bar were however lying unexploited for want of Railway transport on account of the War.

Sampling and sundry sales in-Asbestos, &c, realized Rs. 182/-. The financial results of Geological Department are as follows:—

	1916-17	1915-16
Revenue ...	... Rs. 16,448	Rs. 7,001/-
Expenditure	... Rs 1,847/-	Rs. 1,283/-
Surplus ...	... Rs. 14,601	Rs. 5,718/-

EXHIBITION AND FOREST INDUSTRIES.—The Chaitri cattle Fair at Tilwara was made more attractive by holding an Agricultural and Industrial Exhibition there for a fortnight. Contributions of Marwar Arts and Industrial Products were made to the Imperial Forest Research Institute, Dehra Dun and to the Commercial Museum, Calcutta.

The Marwar Forest Timber Factory at Jodhpur was worked as before by Mistri Ram Ratan as a private concern under the patronage of the State. It turned out furniture worth Rs. 4,760/3. The lacquered wood work of Bagri found market in London through Messrs. Pilley, Aston and Wright.

R. B. Pt. SUKHDEO PRASAD, B. A., C. I. E.

Jodhpur 25th April 1919. }

Revenue Member,

Regency Council,

Raj Marwar.

PROGRESS REPORT.
ON THE
FOREST ADMINISTRATION.
OF THE
Marwar State
(Rajputana,)

For the year 1916-17 (Ending on 30th September 1917.)

—♦—
INTRODUCTION.

1. The predominating feature of the year under report was excessive rainfall and more or less humid conditions prevailing throughout the year so much so that hot weather characterised by scorching winds locally called "Looh", was practically absent from the programme of seasons; and, the aggregate amount of rainfall during the year came to "120" in places against "15", which within the memory of the present generation had never before been experienced; and apparently beats the past whole century record.

(a) As was expected, such abnormal and extreme conditions of weather did not pass without shewing equally abnormal effects in other directions and we had dreadful malaria, floods with their inevitable abnormal influence on trade and traffic, scarcity of provisions and labour. &c.

(b) Havoc amongst transport animals—specially camels was very heavy insect pests and injurious climbers, rank growth of herbs and inferior vegetation, wet rot and swampliness of soil for whole seasons in otherwise dry localities, wet decay of grass crop on all low and flat grounds were very extraordinary events in an arid climate of Marwar, the growth and reproduction of arborescent vegetation in forests have, however, been not bad, on the whole.

2. Considering the abnormal conditions of labour and weather affecting the departmental working very adversely, the finance of the Department has been on the contrary exceptionally good beating like rainfall the whole liferecords of the Department, being a record over record years in respect of netsurpuls which came to Rs. 48,507 against Rs 26,876 of last year, Rs. 33,595 of past 5 year's average and 41,581 of the past highest record.

3. The Forest and allied industries have received a good impetus this year, owing to successful exhibition and demonstration at the Tilwara Chaffri Fair, &c, sampling to outside markets of Karachi, London (England) show at Dehra-dun Forest Research Museum and Calcutta commercial Museum.

CHAPTER I.

CONSTITUTION OF FORESTS.

Section I. Alteration in areas.

1. The area of the State forests remained the same on spot as that of the last year, but on record a change is sure, due to recomputation from the new accurate Forest Topographical survey maps just to be completed. The original maps of General Boundary Settlement Plan Table survey skeleton sheets being not so accurate and detailed and depending more on superficial measurements, the horizontal projections especially of the hilly tracts on a plan are not so true as they ought to be owing to the angles of the corners of the plan appearing more or less, enlarged or contracted in consequence of the sides enclosing them increasing or decreasing comparatively due to chaining on undulating ground being not as accurate and reducible to horizontal equivalents as in trigonometrical survey. These changes will be brought on books, the next year, however.

	1915-16.	1916-17
Protected forests...		
Khalsa	... 291.42 sq. miles.	291.42 sq. miles.
Jagir	... <u>114.13</u>	" <u>114.13</u> "
Total	... 405.55 sq. miles.	405.55 sq. miles.
Unclassed land or public forests....		
Khalsa	... 22.61 sq. miles.	22.61 sq. miles.
Jagir	... <u>19.30</u> sq. miles.	19.30 sq. miles.
Total	... 447.46 sq. miles.	447.46 sq. miles.

2. The area under forest conservancy is divided as follows:—

Forest Conservancy	...	... 405.55 sq miles.
Fuel and Fodder reserves	...	22.61 "
Jagir unclassed forests	...	<u>19.30</u> "
Total	... 447.46	sq miles.

Section II. Forest Settlement

3. This important part of the preliminary Forest organisation is complete except in the case of a few small Jagir areas in Jaswantpura Range owing to resistance by Jagirdars of Puran, Rajiwas and Dorra.

Section III Forest Demarcation.

4. 99 new Pacca masonry pillars to replace the Kutchha ones were constructed in Sojat Range at a cost of Rs 129-14-0 the other old pillars in almost all the ranges being white washed and kept in order, as usual.

5. 82 Chains of the outer boundary line were cleared through contractors in Bali and Sojat Ranges. The boundary record of Khoria, Kantalia, Kot and Eagol blocks covering a length of 71.5 miles was prepared by the survey party.

Section IV Survey.

6. The detailed survey work of the Khoria, Gudha and Kantalia blocks of Sojat Range, Kot and Bagol of Desuri Range, were taken in hand and full details of the names of peaks, nala, frontier boundary and such like were surveyed and plotted on the enlarged sheet during the year under report.

The maps, 100 each of Gudha, Kantalia, Kot, Khoria and Bagol blocks were printed at the T. C. E. College, Roorkee Workshop

The coppice coupe maps of the year were prepared and demarcated on spot.

CHAPTER II.

MANAGEMENT OF STATE FORESTS

Section I. Regulation of Management.

(a) Preparation and control of Working Plans.

7. In the Dhau Zone worked on Coppice with standards system, the year's allotted coupes were properly demarcated, standards marked; and out of the 16 coupes, 7 were sold standing to contractors, by auction, at an average rate of Rs. 5 per acre against Rs. 4-9-4 of last year, with the following results. Bali Range: out of 5 coupes only 1 of Bijapur, area 210 ac. was worked by a contractor of Jodhpur market, but owing to railway restrictions and early and long continuous rainy season, only part of it could be worked the remainder has been allowed to be cut by the same contractor, the next year, on a shorter time limit and on payment by him of Rs. 1-13-4 per acre over and above the full price already recovered from him. Desuri Range: out of 4 coupes, only 1 of Kot area 86 ac. was cut by contractor Sheik Abdulla of Ajmer.

Sejat Range out of 7 coupes, 5 were worked by the above named. In reality the Ajmer market is better established with a fixed permanent annual demand depending upon its nearest forest area of Aravallis and a number of well-capitalised and regularly working contractors; while the local market of Jodhpur, Pali, Summerpur, &c, are not of this nature being more or less fluctuating in rates and demands. The people of these places are loathe to invest large capital and take the trouble of going to forests to do the hard out-of-way forest contractor's business, but most of the local dealers remain content with the import of readily available inferior and little cheaper Khejra, Babul, Kumath, &c, green firewood from the surrounding and open jungle or Sindh markets, although it in the long run compares but unfavourably with the much liked good Dhau (A pendula) wood both in point of cost and ease of dealing.

8. This rainy season, the conditions of the firewood market were the most unfavourable for the daily consumer and very profitable, though hard, for the seller. For a while, the rate of ordinary inferior firewood rose to about $\frac{1}{2}$ a maund a rupee and even for that sufficient quantity was

not easily and readily available, owing, of course, to the most extra-ordinary heavy continuous rainfall and consequent more or less severe and repeated breaches on all sides in the railway line and dreadful Malarial season causing a havoc amongst the population confining to bed the working classes and restricting transport conditions very badly, in addition to the prevailing restrictions of railway traffic owing to the present War.

9. These conditions have, however, opened the eyes of all concerned to the importance of reserved local forests existing or non-existing, for the time being; and it is expected that in the immediate future, at least a greater precaution will be taken to store firewood from all available sources with greater care and energy; and as a net result of it, the fire-wood yielding areas both the dead and dry wood utilisation sources and green wood coppice fellings, are likely to be worked intensely.

(b) Preliminary Working Plan.

10. A Working Plan for the systematic exploitation, extension and improvement of the Anwal (*Cassia auriculata*) areas in Marwar was prepared and submitted per letter dated 29th. December 1916 to the Mehkma Khas for approval, where it remained pending up to the close of the year.

11. Also, a detailed practical scheme for the scientific and business-like handling of the old propaganda of forming Fuel and Fodder Reserves advocated by the famous Expert, Dr. Voelcker Famine Commissioner of 1891 was framed and submitted as per letter dated 3-8-16 for consideration of Mehkma Khas.

(c) Plan of Operations.

12. These were duly prepared and submitted by all the range Officers and sanctioned by the head office with the exception of certain items of expenditure pertaining to immediately unremunerative works; the conduct of the works on full scale proposed could not be forced owing to the out-break of early and heavy rains and to the scarceness of labour available, that principally hindered the pushing on of artificial regeneration, utilization of minor products and minor forest industries.

Section II. Communications and Buildings.

(a) Roads and bridges.

(13) As remarked in paras 14 and 15 of last year's report, most of the required leads to the heart of the forest area, were taken in hand, newly laid out, extended and developed in a better condition, so on new track road or path were either aligned or constructed, only the petty, yet substantial repairs to what were already existing and were damaged by the heavy rains made at a total cost of Rs. 650-2-6 as under:—

Jodhpur Range	...	...	Rs 102-15-6
Bali	"	...	Rs. 193- 3-6
Desuri	"	...	Rs. 92-12-6
Sojat	"	...	Rs. 239-12-6
Jalore	,,	...	Rs. 21- 6-6

14. None of the forest tracks is a metalled road necessitating the construction of pacca bridge and the exit for the lateral water courses during rains along them are generally provided by Irish bridges or Katcha drains; consequently no attempt has been made up till now to erect any pacca bridge.

(b) Buildings.

15. What were greatly in demand and wanted for the accomodation and quartering the protective, executive and inspecting staff at head quarters and on tour as well as for the protection of state cattle and depot articles, had all to a sufficient extent, been constructed last year (Vide paras 16 to 29) with the outlay sanctioned under forest and famine budgets. The required repairs were done to the existing buildings and new lodgings for the lower protective staff were erected as under at a total cost of Rs. 1391-10-0.

- (a) Jaswantpura range a small Chouki at Chitrori for Rs. 33-10-6.
- (b) Parbaisar range; Two huts and a fence at Pi and Bidiad costing 27-0-0
- (c) Desuri range; An office room, &c, made of Pacca bricks and mud mortar at Desuri Chouki were erected at an expenditure of 127-3-3
- (d) Sojat range; Forest guards quarters at Karmal and Deoli were constructed at a cost of ... 68-2-8
- (e) A depot Mohrir's room at Chandawal forest depot was prepared at an outlay of 21-2-6

(c) Other works.

16. Last year, famine relief fund sanctioned as an additional provision for the construction of wells, water pits, tanks and other miscellaneus works (Vide para 30 to 32) considered necessary for the improvement of the forest and the facility of water supply to the cattle and general public &c fulfilled the apparent requirements of forest Choukis roads or passes and created a permanent item of expenditure for their repairs later on. But this part of the business pertaining to general public interests concerned more the P. W. D. and have to be taken care of by them in due course. Amount of Rs. 5-8 0 during the year under report was however, spent from forest funds where deemed necessary.

SECTION III. PROTECTION OF FORESTS.

(a) General Protection.

17. The general protection of Forest was good as would appear from the decrease of offences. The Semi-wild tribe of Grassias used to graze their sheep and goats as usual inside the reserve and did not abide by the rules; and restrictions could only be partly enforced as per suggestion made in last year's report, para No. 33. In some ranges graziers other than Grassias were tempted to illicit grazing inside the protected forest owing partly to the comparatively rich fodder obtainable inside forests and partly to the exhaustion of the vegetation in Gujara left outside.

(18) 599 cases of the forest offences were reported to have occurred in State and Jagir forest managed by Raj against 648 cases of last year the decrease of 49 cases being due to good crop of grass found procurable outside the reserve and the habituated stealers of the forest products having been wholly engaged in their summer agricultural pursuits on account of good monsoon rains. Out of 599 cases, 3 cases were *chalaned* to Judicial courts while the rest being compounded departmentally.

The table below compares the results of the year under report and past 3 years.

Class of Offences.	Average for past 3 years.	Offences during the year.	Remarks.
Injury to forest by fire ...	5	1	
Unauthorised felling or removal of produce	2,05.3	208	
Grazing	223.3	282	
Other offences	129.3	107	
Total ...	563	599	

(19) As remarked in para 35 of last year's report the work of cattle pounds was separated from the Forest Department. The Jodhpur Sewari, Nana, Sadri, Saran, Chandawal and Marwar Junction station, &c. general cattle pounds were managed by the Forest Department 3994 cattle were impounded with the following results:—

Expenditure	...	Rs. 623-15-3
Revenue	...	Rs. 2417- 7-9
Net	...	Rs. 1793- 8-6

Cattle of all sorts on being arrested for illicit grazing in the reserved and protected area were sent to the different cattle pounds.

(B) Protection from fire.

(20) The success obtained in the area attempted to be protected from fire the year under report was good only (1½ acres) area was burnt by the outbreak of small fire which occurred in Khundias forest of Parbatsar Range, the incendiary was arrested and the case compounded departmentally. The favourable result was mainly due to the early and continuous monsoon rains that remained falling intermittently throughout the year. The fire lines were duly cleared off and 'fire' guards maintained as usual. The expenditure came to Rs 216-0-0 against 7/-—last year. The increase was due to the enlistment and entertaining the required no of fire patrols owing to the good crop of grass as well as other inflammable materials.

(c) Protection from cattle.

(21) It is traditionally well known in Marwar that the deficiency, infrequency or dearth of one year's rainfall is followed by the altered and contrary conditions and attitudes of the monsoon rains of the

succeeding years. The year under report came under the latter category and in consequence thereof, there was an ample crop of grass outside the reserved and protected area; and the cattle admitted into the area of Khalsa forest came to only 22916 horned cattle and 4213 sheep, goats on fee and 11158 both sort, Free of charge, against 85227 cattle all sort last year of great scarcity.

(d) Protection against injuries from natural causes.

(22) The extraordinarily heavy rainfall that recurringly occurred during the major part of the year in an arid country like Marwar played an important part in the natural regeneration of injurious insects and wild animals. The defoliators and rodents that grew up in considerable number attacked the leaves, shoots, bark and roots of juicy plants causing a great damage to the vegetation, in general. Twice, stray and scarce swarms of locust pest visited the forest area making their nightly halts in the best part of the Aravalli forests. The unfavourable and unseasonable air laden with moisture blew throughout the year rendering fertilization of the arid Zone species entirely inert, the swampliness of the over-ground debris or detritus and the under-ground-water logged nature of the soil enfeebled the growing capacity of the seedlings and saplings to a certain extent. Frost did not appear at all.

Section IV Sylviculture.

(a) Natural reproduction.

23. Except in the valleys, dales and passes along water courses, the last year's saplings and coppice shoots grew well on the well drained sites, but the seedlings of the year under report could not make good progress in the winter season owing to the excessive amount of moisture in the ground and great humidity of the air; later on, as the watery portion of both these agents continued to be reduced in quantity they regained their recuperative powers and after establishing themselves well gave out strong shoots and foliage. The seeds fallen over the ground could not germinate fully owing to the heavy rains as most of them had been taken down by the dashing current of water courses while the rest had been buried out under moist humus and water, could not make their appearance above ground and were rotten. Those of the hardy species that escaped these natural calamities and occupied their firm abode in situ, were growing prominently. The sprouting bamboo culms were excellent as remarked by the Inspector of Bali Range in his annual report.

(b) Artificial reproduction.

24. Some of the prominent blanks in different forests were filled up by partial pit and broadcast sowing of seeds of indigenous and exotic species at a cost of Rs. 252-24-6. Much more could have and ought to have been done had natural inclinencies of weather not interfered badly. Those seeds that germinated, established and escaped the unfavourable effect of heavy rains were doing well till the time of writing the report; some plants from the forest nurseries were put out into the forest along water courses and layers and cuttings were also planted in the open blanks.

25 The small forest nurseries at Sewari, Nana, Sadri' Desuri, Marwar junction, Sojut Road, Sunda Mataji, Jalore and minor plant raising sites at Nana, Sadri, Hargana and Desuri containing plants of different species were maintained as usual. The available plants were put out in the forest, special plantations and along road sides and were supplied to private cultivators in order to serve the above purpose of forest reclamation and public agricultural reform. The condition of the plants in the nursery was good on the whole, only those of Sunda nursery suffered to some extent on account of heavy rains

(c) Operations for the improvement of the growing stock.

26 only in Nana and Behra blocks the thinning and cleaning of old coppice coupes were taken in hand in order to remove the inferior species and climbers and provide more growing space to the coppice shoots of the principal valuable species. The removal of dead and dying trees from all the forests was kept continued during the working season the year under report. But the scarcity of labour and outbreak of Plague in almost all the villages adjacent to the forest are a did not allow the conduct of this the improving operation feasibly and on larger scale.

27 In Jaswantpura Range the removal of dry culms from the bamboo clumps through the agency of purchasers at reduced rates and by department was acted up to a certain extent.

28 A four acres sample plot was demarcated in Javia forest Jaswantpur Range, the standing trees were coppiced and the area was enclosed with a fence. From the observations recorded in the range sample plot register, the Ber shoots predominate over Dhou and Kumat, the former measuring 6 feet in height while the later only 2' or 3' high.

(d) Experiments.

(29) Encouraged by success of most valuable Anwal (Cassia Auriculata) extension experiments further into the interior of Marwar, thousand of seeds were scattered broadcast in cultivated areas and dibbled in and success was good at Murdawa, Kantalia, Jalore and Jodhpur, &c.

30 A further attempt, as remarked in para 52 last year report, was made to start lac propagation operation in Desuri Range forest. 123 Dhak, Pipal, Ber, and Bar trees were inoculated with 525 seed sticks during the month of July but the result was not favourable owing to the unsuitable climatic conditions.

31 In the specially constructed pits for storing green fodder, as remarked in para 51 last year's report the following quantity of grass cut green and systematically ensilaged at a total cost of Rs. 64-0-0.

(a) Silo at Bijapur 488 mds

(b) Silo at Siwari 194½ mds

out of 300 mds. of grass ensilaged into a pit dug up at Saram nursery, nothing was taken out but it appeared that the grass had rotten away, owing to adverse climatic conditions.

32 In Bali Range about 12 bottles of Rosa Oil were extracted from the grass under distillation system at a cost of Rs. 44-6-9. No attempt could be made in Jaswantpura or any other range as mentioned in para 54 last year's report owing to heavy rains and prevalence of epidemic disease among the villagers where from the labour was obtainable.

33 The exotics introduced in Marwar since the last 2 or 3 years in arboricultural plantation as remarked in para 55 last year's report were all doing well. A further extension was made with favourable results.

34 The experimental attempts made towards the research of the utility of certain minor forest products in their transformed or manufactured forms, were kept continued as the results obtained were encouraging and instructive.

(a) Manufacture of rubber from an indigenous creeper (*cryptostegia grandiflora*)

(b) Utilization of drugs

(c) Extraction of gum-oleo-resin from salor

(d) Utilization of floss, bast fibre and milk of Ak.

SECTION V. EXPLOITATION.

(A) SYSTEM OF MANAGEMENT.

(a) Major Products.

35. Generally the forests were worked under permit system, improvement fellings (the removal of dead and dying trees) selings and coppice with system which was in force in the eastern Aravalli Ranges only while the standard former two were in practice everywhere in the State Forests, in order to meet the local demands of the concession holders and purchasers.

(b) Minor Products.

36. Some of the principal minor products were treated under contract system, some (grazing and bamboo cutting) under permit system; while, the rest under departmental removal in order to develop the local conditions of the area and control of concession holders and purchasers

(B) AGENCY OF EXPLOITATION.

(a) Departmental agency.

37. Outturn of timber and fuel cut and collected by the departmental agency under coppice with standard system and improvement and selection fellings was 13340 cubic feet and 65435 cubic feet during the year as against 23431 cubic feet of timber 308196 cubic feet of fuel in the previous year. The decrease under both the items giving so much rest to the poor Marwar Forests was not unwelcome and was due chiefly to the heavy or continued rains and the spread of Malaria fever among the inhabitants of the Villages adjoining the forest area wherefrom the labour was chiefly collected. Consequently the works under the proposed and planned out scheme could be put partially taken in hand for want of labour.

(10)

The total revenue derived from the sales of the departmentally exploited major and minor produce came to Rs. 49,930/-14-2 or 50.94 per cent of the total forest gross revenue against Rs. 48185-14-5. The increase came off mainly owing to the disposal of the last year's balance and the recovery of the outstanding of the minor produce sales.

The proceeds from the sale of bamboos, &c, removed during the year by Raj agency are given in the table below.

Particulars of produce						Value Rs.
Bamboos	...	...	...	...	...	505
Grass	...	...	...	...	...	112
Honey, Hides and Lac &c.	...	...	...	...	...
Guine, fruits, and leaves	...	...	;	...	...	57
Miscellaneous.	...	...	...	...	...	12

(b) Purchasers.

38 The outturn of timber and fuel cut, collected and removed from the forests by consumers and purchasers amounted to 6017 cubic feet and 124075 cubic feet respectively as compared with 7911 cubic feet of timber and 143158 cubic feet of fuel during the preceding year. The revenue obtained was Rs. 11796/- The decrease of both the items was due to the fact that the purchasers being engaged in raising their agricultural crops and other rural occupations pertaining thereto, could not come to their forest business. The heavy rains and Malaria fever took a certain share in this impediment.

The yield of coppice coupes worked up by the contractors in shape of timber, fuel and charcoal has been included in the above figure.

39 The total value of the minor forest produce removed including bamboos, grass, grazing, &c, and of the royalty (duty) levied on about 55000 mds of Anwal bark exported from all 1.12 Anwal producing Parganas was Rs. 37443 against Rs 37375 of the previous year. The increase is due mainly to the Anwal proceeds that materially affect the gross revenue. The table below shows in details the revenue

Particulars					Value Rs.	Remarks
Bamboos	...	...	...	...	671	
Grass, Grazing	...	...	...	...	5601	
Minerals, stones	...	...	...	...	836	
Anwal bark	...	...	...	...	27980	
Guine, fruits	...	...	...	...	527	
Miscellaneous	...	...	...	...	39	
Honey, Hides	...	...	...	...	2,298	
				Total	37,443	

(C) Right Holders

40,21,233 cubic feet of timber and 4,61,88 cubic feet of fuel against 40,809 cubic feet of timber, and 3,10,11 cubic feet of fuel last year, were removed by the rightholders during year under report. The decrease is due to the fact stated already in para 62 last year's report. The estimated total value of these products came to Rs. 8494 while the well dues, price of bamboos and minor produce at reduced rates, realized was only Rs. 5355 creating a loss of Rs. 8704 sustained by the department for the concessions so graciously granted by the Durbar to the villagers of the vicinity of the forest area.

(d) Free Grants

41. No real free grants were made during the year under report, while the free removal of forest produce and grazing by Grassia and Ravat first class villagers has been included in the quantity of forest produce extracted by the right holders.

(e) Outturn and sources of forest produce

42. All the forest produce was extracted from the reserved and protected forests excepting a great quantity of Anwal bark from the area of Anwal producing Parganas. The total outturn of major produce was 40,290 cubic feet of timber and 2,35,698 cubic feet of fuel as compared with 72,121 cubic feet of timber and 4,843.7 cubic feet of fuel last year. The value of minor produce removed is calculated to be Rs. 18,300 as against Rs. 47,360 last year. The reasons for the decrease have been given above under different agencies of exploitation.

CHAPTER III.

FINANCIAL RESULTS.

43. The revenue and expenditure of the year under report as compared with those of preceding year and the average of past 5 years are given in the table below; the surplus being the highest ever recorded so far.

Year.	Revenue.	Charges.	Surplus.	Remarks
1916-17	...	1,06,708	58,200	48,508
1915-16	...	97,357	70,881	26,876
Average of past 5 years.	...	92,516	64,923	33,593

44. Rs 6,809-2-5 were realised from major forest produce giving an increase of Rs. 10891-6-3 over that realised during the last year, the reason being that the last year's balance of forest produce from depot was sold and the outstanding recovered. It is 60 per cent of the gross revenue

45. Rs. 35,481-0-10 were collected from the sales of minor produce, including bamboos, grass, grazing and Anwal bark in comparison to Rs. 39,708-10-3 last year showing a decrease of Rs. 4,227-9-5 that is chiefly due to the reasons given in para above. Rs. 74,7-8-3 were realised from other sources including fuel and fodder reserves, that represents 7 per cent of the total forest revenue. Rs. 54,359-14-2 of revenue were derived through the exploitation by Raj agency and Rs. 52,347-13-4 otherwise.

46. The total expenditure of the year under report came to Rs. 58200-0-0 representing a decrease of Rs. 12681-5-9 in comparision to that of the last year; out of that Rs. 23175-7 9 were spent on establishment charges and Rs. 33014-12-4 and Rs. 2009-12-9 on forest conservancy works and fuel and fodder reserves respectively.

CHAPTER IV.

Administration.

47. The Hawala, Customs, and Military departments cooperated the Forest Department well in the necessary matters of interest and in the supply of camel Sawars and peons. Thus the relations with one another were concordant.

48. Pandit Atma Ram Gour; Survey Officer continued to work in Survey Branch, in collecting data for working plan, in designing and planning of forest works and conducted the prospecting and forest minor industrial operations.

49. Messrs. Gokal Chand, Doulat Ram Saini and Sita Ram remained in charge of Western, Eastern and Direction Divisions respectively till the return of Pandit A. Rikheshwar D. D. R. from the furlough granted to him. After that the arrangement and adjustment was made as under.

- (a) Pt. Rikheshwar D. D. R appointed Assistant Superintendent of Forests on 29 June 1917 was spoken of to supervise the works of western Aravalli ranges, working plans and survey, and he worked in that capacity till the close of the year.
- (b) Mr. Gokul Chand was transferred as a forest Inspector in charge of Sojut Range. He remained there till the year closed.
- (c) Mr Doulat Ram Saini; was, ordered to look after Bali and depot ranges as a Forest Inspector during the latter part of the year.
- (d) Mr. Sita Ram Kachhwaha'; remained in charge of Jodhpur Range, Agricultural farm and Arboriculture as a forest Inspector.

50. Messrs Sukh Raj Byas and Khem Raj Solankhi Deputy Rangers remained for a greater part of the year in charge of Sojut and Siwana ranges, but during the latter part of the year under report Mr. Khem Raj was transferred to Desuri Range and Mr. Sukh Raj who was deputed to survey work of western Aravalli ranges was suspended for the misuse of State money.

51. Two more Marwari youths who were sent to Balaghat Forest School for training, came out successful in the month of March 1917 one of them Mr. Shri Kishan Kachhwaha' was first put in charge of Bali Range under the supervision of Mr. Doulat Ram Saini the then Divisional Forest Officer and afterwards was transferred to depot range at the end of the year under report The other Mr. Delawar Mohmed was first put in charge of Desuri Range and afterward was transferred to Jaswantpura Range at the close of the year. They all worked fairly satisfactorily except Sukh Raj.

52. Munshi Dasu Ram the Head Clerk was made to retire during the month of February 1917 and Pt. Fateh Haj Tiwari was employed in his stead. Owing to Malaria Epidemic the Office Staff on the whole could not keep pace with the demands of the progressive work.

53. The dismissals ordered reductions made and fines awarded to the different members of the forest department during the year are given in the following statement. The Foresters, Head Guards and others generally worked well

Class of Subordinates	Dismissals	Reductions	Suspension	Fines &c.
Dy. Rangers	1
Foresters	5
Head Guards	1	8
Mohirs	6	33
Guards	3	23
Clerks	1	8

54. An enough number of Forestry trained students has been entertained for the present and an attempt, as remarked in para 74 last year's report was made to impart preliminary technical training in higher forest survey in order to economise the survey work of different ranges. Mr. Sukh Raj was placed as a member of first batch on survey permanently and the others will be deputed by turn.

CHAPTER V.

GENERAL.

Section A. Grass storage and silage .

55. Luxuriant and plentiful quantity of grass produced during the year owing to good rains, about 11,878 mds. 5 seers, were cut to be stored and ensilaged, out of which 182 Mds. 25 seers was sold for Rs. 32-5-6. 852 mds. 18 seers were buried in silo and the rest together with the ending balance of last year stood in hand 12496 mds 15 seers at the close of the year Rs 3596-0-3 were spent over the new grass cut and stored.

56. All the silos named under para 76 of last year's report were kept in good working order and the deposit of newly cut grass was put in them at different places

Section B. fuel and fodder reserves.

57. Partial sowing of seeds of indigenous species (Babul, Khejra, Kumat, &c,) broadcast and into pits was under-taken on all plots of fuel and fodder reserves; and some plants from the nurseries at Jodhpur were sent to Baloera and Tilwara plantations to be put out in the open in order to fill in the gaps. The germination of the seeds was excellent and the plants established well, but the heaviest rains endangered the progress latter on, most of the seedlings and plants weathered out; in the long run the result turned out satisfactory.

58. All the plantations at Balotra Ry: Station were maintained in good order and new plants from nurseries were introduced; but the heaviest flood of Luni river over its banks during the torrential rains created an excessive amount of damage both to the sides and vegetable there or by erosion and stagnation of water. The arid Zone plants suffered much from heaviest rains.

59. Shikarkhana areas in the environs of Jodhpur were kept as a part of Jor under the department for a period of 10 mouths and after this they were in part handed over to Shikarkhana and Sardar Rasala department as per Mehkma khas resolution No: 857 of 6 th July 18. But some petty portion connected with arboriculture surrounding Jodhpur was continued to be managed by the Forest Department as fuel and fodder reserves.

The revenue and expenditure of this concern are shewn as under

				Rs	as.	p
Revenue ...	...	...	...	2 288	11	8
Expenditure	...	...	...	2,000	12	9
Surplus ..	...	...	...		14	11

60. The surplus was, in comparision to that of last year, small by Rs. 1,145-9-4 the reason being the separation of a greater part of Jodhpur Jor from the area under forest management and not permitting the normal number of cattle into other areas on account of ample grass available outside.

Section C Arbo:riculture

(A) At capital

61. The existing road side plantings and plantations were kept as usual in good order and looked after; the gaps were filled up with 3035 plants from the nurseries

62. In addition to the npkeep and fostering of the plants put out last year at race course ground, Mahamandir town road, Jodha Squadron well, Chensukh Bera, Bota, Revenue Offices of court buildings and Taparion-ka-talao (vide para 82 of last year report), the following new operations were taken in hand. The plants were all in good condition

1. Mandore road upto Khokaria
2. Revenue Offices road
3. Raikabagh Road
4. Palace Pologround Road
5. Khijor (date) Chahak bel (Cryptostegia grandiflora ; Mahua and Cassia auriculata planting at Ravan-ka-Bhala and Race course.
6. The Mahua plantation at Chensukh-ka-Bera
7. The Khair (Acacia Catechu) Jinja (Bauhinia), &c, planting at Bada Bhakar (Marwar Abu)

63. The private charity process of planting trees in topes and groves at some specified places of public utility and interest, was further extended with the aid of the State and plants were given free of charge for this co-operation to be put out in the gaps and on new spots.

64. The planting and sowing operations at Chhitar naked hill were kept continued in order to clothe the area with a cover of indigenous vegetation as remarked in para 84 of last year's report. The plants put out last year were closely looked after and reared; and new plants were added in order to fill in the vacancies and cover new blanks. Sowing of seeds in pits, pots and ditches were also made in order to achieve the end, the germination was good.

65. At the end of the year the plants in hand at nurseries and in situ along roadside and in plantations were 11790 and 25725 respectively against 10924 and 15840 last year. The increase is due to greater efforts at nursery work. 887 plants died out, 986 were sent out to the district arboriculture concerns and 57 were given free from the nurseries. Out of road side plants 7437 were continually watered during the year.

66. Rs 853-0-6 re realised from the sale of dry trees and windfalls. The nurseries wells (Chensukh-ka-Bera, Jodha Squadron, Col. Lock, Shri Summarai School) and small tanks (Paota and Chittar) contained 16755 plants including the last year's balance, out of that 3035 plants were put out along road side avenues, 986 sent out in the district, 57 given free, and 817 died out, leaving a balance 11790 in hand at the close of the year.

67. The Biyas-ki-Baori and Khema-ka-Kua wells were continued to be worked, on behalf of Dharampura and Shikar Khana Department for watering pigs, city cattle and public at an expenditure of Rs. 30/13 and Rs. 134/8/6 respectively.

B In the Districts.

68. The Tilwara cattle fair ground plantation raised for shade purposes suffered a little by the highest flood of Luni river ever recorded. Most of the plants were uprooted, and taken along by the forcible current of the running water at a great rapidity. The gaps so formed were filled up by new plants supplied from Jodhpur nurseries. But, the good growth of artificial and natural vegetation more than recouped the loss. At the close of the year there 250 were plants and Rs. 22011 were spent over their maintenance.

69. Some of the plants put out and raised by State aided public charity along the cart track from Samadri J. B. Ry. Station to the village proper, were in a good condition while the others that had suffered severely during the last drought and heavy rains were in a sickly state to be replaced by new ones.

70. The Summaipur arboriculture work at the Turkish prisoners-of-war Camp, was properly maintained at a cost of Rs 452/14/3. But the demarcation of a new site ordered from Mekama Khas to be put under arboricultural operation, could not be started during the year under report.

71. Rs. 349-3-0 were spent on the maintenance, improvement and extension of Falns-Bali road, that contained both last year's balance and the new plants numbering 729 out of that 23 plants died out while the rest remained in a good condition, 383 required watering all the year round; Rs. 84-15-0 were spent.

This is the best of the roadside plantings in districts containing many a fruit plants such as Mahua, Mango, &c, in a flourishing condition.

72. The supervision of Haripur Station road side plants was duly kept, the gaps formed were refilled and a further extension made Rs. 108-13-3 were further spent on raising 76 fruit plants in the farm of 1½ acres established near tank Madhobilas (vide para 92 of last year's report) It is a step towards help to be given to cultivators in their agricultural pursuits.

73. The plantings at Barmer Pali and Sardarsamand roads were properly looked after and maintained,

74. Rs. 498/5/6 were spent on the up-keep of the Jayappa Scindia Chhatri orchard at Taosar (Nagore) containing plants.

75. The Merta nursery was maintained with a plantation of fruit trees at a cost of Rs. 88/4 about 150 plants were given free to cultivators.

76. The road side planting at Saran was duly maintained and some plants were newly put out.

77. The revenue derived from the arboricultural works came to Rs. 1472-6-6 and the expenditure amounted to 12,452-6-9 as compared with Rs. 1647-12-6 and Rs. 15,116-12-6 respectively last year.

						Rs. as p.
1. Forester	...	...	...	...	...	754 14 0
2. Malies and Choukidar	...	...	...	...	...	8,498 7 0
3. Shisties and Choukidar	...	...	...	...	...	3,972 10 6
4. Sagars	...	...	...	...	...	495 5 3
5. Grass-corn	...	...	...	...	...	940 14 6
6. Planting	...	...	...	...	...	909 12 0
7. Fencing	...	...	...	...	...	1,213 5 9
8. Tools	...	...	...	...	...	151 19 0
9. Mal and Gharlies	...	...	...	...	...	156 4 9
10. Miscellaneous	...	...	...	...	...	182 7 0
11. Polo-ground	...	...	...	...	...	176 18 6
				Total	...	12,452 6 9

D. Experimental Agricultural and horticultural farm.

78. The experimental farm at Jagatsagar, Jodhpur was kept up for the Agricultural and Horticultural aims and ends proposed and anticipated. But the heaviest monsoon rains of the year proved partly disadvantageous or detrimental in some respect and partly profitable in other concerns. Owing to the constant overflow of the tank situated to the west of the farm proper at a higher level through the sluices, canals, drains and other low courses, washing away surface soil and causing damage to petty earthwork here and there, but the masonry work of the tank canals, &c, stood well the severest test so soon after their construction. The crops and plants in the beds remained under flood water that formed an envelope round about the seedlings and right up to their tops, impeded entirely the free circulation of air in the soil and above ground for a long time and in the long run killed many of them outright. The sediment of new layer of humus soil deposited by the subsiding current of slowly moving water over the seed beds, the retention of moisture in the sandy subsoil for a greater interval of time, the high water table procurable in all the wells and Baories throughout the year, the continued presence of intense humidity in the surrounding atmosphere, and other favorable climatic conditions induced the pomegranates, roses, goondas, grapes and other species requiring more humid and mild temperature such as sugar-cane, betel vine, potatoes, orchards, palms, &c, to grow more vigorously and fructify copiously or at an abnormally early stage and period bringing in a good return of marketable produce. But those species that do not require so much humidity in the air and moisture in the ground such as 'rosopis, Atriplex, Zizyphus, &c, suffered to a certain extent by wet washing or rotting on account of the heavy rains and did not make good progress.

79. Mr. Jagdish Ghoti; an active Guard of J. B. Ry (Hyd. Sindh Secy) and a good writer on agricultural, &c, subjects, was appointed Recorder to the Agricultural & Horticultural Farm Jodhpur on 21st November 1916. He worked satisfactorily.

80. There being no restriction regarding the general admission of public visitors specially farmers and cultivators, in the farm, at any time of the year in order to see the different methods of agriculture in practice on the spot and to learn something therefrom, the public frequented the site every now and then, took great interest in the matter and were much pleased with the encouraging results of the vegetable activity and prosperity of the crops grown over the area which was once a barren waste of sand dunes. Many of the visitors took plants, seeds, &c. from the farm free or at reduced prices. The revenue and expenditure of the business stood as under.

Revenue ...	Rs. 1,827
Expenditure ...	Rs. 8,627.

81. Rev. Dr. Sam Higginbottom, M. A. B Sc. Principal Allahabad Agricultural Institute (Ewing Christian College Naini) on being invited by Darbar to reports on the Improvements of Agriculture in Marwar, visited the Farm and Forest nurseries and warmly appreciated the steps taken and the results achieved so far in this important direction by the Forest Department, vide his full report attached (Appendix A) Khan Bahadur

(18)

Merwanji Pestonji B. A; LL. B. the Musahib Ala (Prime Minister) of Marwar State and Rao Raja Narpatsinghji A. D. C. & Household Controller to H. H. the Maharaja saheb Bahadur K. C. B. E. of Jodhpur, also visited the Agri. Farm on 4th March 1917 and 8th August 1917 respectively and both were highly pleased.

82. As per the directions and principles laid down in para 107 of the report of 1913-14, the Jagir forests were looked after by the department accordingly

(A) Class- State Supervision free.

		1915-16	1916-17
Raipur	... { Revenue ...	3,047 12 0	5,034 13 9
	{ Expenditure ...	1,313 1 6	2,263 9 0
Ghanerao	... { Revenue ...	729 10 3	1,054 1 3
	{ Expenditure ...	394 7 3	521 13 0

(B) Class, Anna Share System, established (shares)

		Realised	
Bar	... { Revenue ...	99 14 0	1916-17
	{ Expenditure ...	41 10 6	98 8 3
Barautia	... { Revenue ...	19 15 6	43 15 0
	{ Expenditure ...	103 7 0	173 2 0
Babra	... { Revenue ...	20 6 5	98 11 6
	{ Expenditure ...	103 0 0	97 12 9
Somel	... { Revenue ...	30 5 0	95 6 0
	{ Expenditure ...	103 1 0	178 4 0

(C) Class, - net surplus payment lease system.

		1915-16	1916-17
Parbatsar	... { Revenue ...	649 8 0	812 4 9
	{ Expenditure ...	420 14 3	600 14 3

(D) Class, - provisional khalsa management

JASWANTPURA

10 Jagir forests of Uchmat, Chekhlan, Dantlawas, Puran, Do'ra, Rajkawas, Paharpura, Gangagura, Khāndadeval and Basra and 3 Mishtarka (joint) areas of Savidhar (2/5 Jagir and 3/5 Khalsa), Chitrori (1/3 Jagir and 2/3 Khalsa), Sheogarh (half by half), were managed by the Department yielding revenue as follows.:

Revenue		1915-16	1916-17
	... ...	Rs. 1,873 13 0	2,116 4 7

The expenditure was included in Khalsa figure of the range.

JALORE.

Forest areas of Kolar, Meda, Pandegaron, Chiparatum, Daula and Mailawas were also looked after by the Forest Department and Rs. 217-8-6 were realised as revenue in comparison to Rs. 253-4-9 of last year the expenditure was included in Khalsa figures of the range.

83. Rs. 217-8-6 from Jalore forests and Rs. 627/5/16 from Jaswantpura, making a total of Rs. 844/14 were recovered as revenue that was satisfactory considering the great betterment and rest period being enjoyed by the forest vegetation so very ruthlessly mutilated and over-exploited by the ignorant criminal forest tribes—Menas and Bhils and greedy Jagirdars. The small realization was also due to the different Jagirdars not abiding by the forest rules and regulations, and showing great indifference in the conduct of the forest works.

(F) Geology and Mining.

84. The year under report stands as a second year of the newly organised Geological and mining business worked separately on well established lines and systems. The results obtained are favourable as shown below:-

- (a) The output from Degana Renwat hills wolfram mine was 33 tons 5 cwt. 12 lb removed by Messrs. Pearson and Rice 19 tons. 13 cwt. 1qr. 14 lbs. by Messrs. Pearson and Rolfe Morris of Calcutta the parties of Br, syndicate. A royalty of Rs 10084-13-4 was recovered at 7½ per cent up to the end of the year under report
- (b) A contract for the removal of graphite ore at Bar, Hirawas Pokarian-ki-waddi was given to Messrs. Dadabhai Sorabji Vakil Ajmeri at 45 per cent royalty of the realised value of article removed but no ore was carried away till the end of the year. Another contract of Jasai red mottled granite newly discovered was also given to Mr. Abdul Rahman of Jodhpur at Rs. -/- 2 per maund royalty. 16 wagon loads weighing each 272 mds. were removed and Rs. 50-10-9 were derived therefrom. Rs. 2/8/- per wagon were charged as customs duty in addition to the royalty.
- (c) A contract of Mica Schist ore was given to a local man named Tara Chand of Bijapur at Rs. 25/- per year, the amount of the contract having been realised.
- (d) A contract of Gypsum of Kavas, scelentite of Chitar-ka-pahar, Gungamitti of Sheo, Banar Mitti (white Kaolin), red and yellow ochre of Bhiwan of Sheo was given, from the month of February 1917, to Messrs, Ramnarayan Bansilal Sonar of Jodhpur for 3 years at the rate of Rs. 1,025/- per year Rs. 525/- were recovered up to the end of year.

- (e) Marble stones diffrent varieties were not removed from the mines either departmentally or on contract during the year under report owing to the demand from outside being slack and the wages dear. The want of Railway transport means on account of war chiefly impeded the working.
- (f) 335½ mds. of se'elite were sold from the deposits collected departmentally to Mr. Ram Narayan Sonar of Jodhpur at -/8/-per md. and Rs. 167-12-0 were realised as revenue. Small sale of Asbestos, Felsper, Mica, Manganese, cobaltiferous manganese was made.

85. The working of different mines departmentally for sampling or experimental purposes was kept continued and the work of prospecting went on regularly all the year round with good result, Forester Jainarain Joshi giving satisfaction.

86. The finance of the business stands as below:-

		1,915 16	1,916-17
	Rs.	Rs.	
Revenue	7,001 0 0	16,448 0 0
Expenditure	1,283 9 1	1,847 0 0

It indicates that the business is turning out more and more lucrative every year under the Department without any extra staff or expenditure.

(g) Forest and General Inaustries.

87. Timber Factory:-

Mistry Ram Ratan worked as usual, his private but State patronised Marwar Timber Factory on sound basis throughout the year under the general supervision and technical aid from this Department. Both indigenous and exotic timbers were utilised in the manufacture of variegated high class furniture. The combination of the two sort of timber was started in order to encourage the local carpenters to imitate the example and consume the so far neglected indigenous timber of Marwar on a large scale with profit so that the use of the foreign material might diminish gradually. Furniture of the value of Rs. 4760/- were made during the year.

88. In order to popularise and put to market the samples of different manufactures and art pieces of Marwar an impetus and encouragement was given to the enterprisers and workmen by setting them to prepare the best possible articles of their own designs and invention. They were purchased from them put to exhibition and demonstration in museum for show and sale. A great demand was created in India and overseas for some of these samples being sent to various, persons agents, firms and C. ys.

The following are the works taken in hand:-

- (a) Bagri lacquered wood turnery and, Jaitaran Robin wood carving and turnery.

- (b) Nagour iron works
- (c) Merta ivory and khas-Khas works
- (d) Jodhpur and Merta pottery works
- (e) Jalore, Merta, Balotra, Pali and Pipar cotton works, white or coloured, calico printed, or tied and dyed, chequered cloth.
- (f) Phalodi and Nagour woolen works.
- (g) Jodhpur and Kuchaman brass and copper works.
- (h) Jodhpur leather works

89. A small industrial products stall was maintained at Jodhpur Railway Station as remarked in para 101 last year's report for the purposes narrated therein.

90. An attempt was also made to manufacture the following at Jodhpur the samples were sent out to be tested by some experts and the results obtained were encouraging.

- (a) Tanning extracts from Anwal, Babul, Dasson, Bakli, Mehdi-bark. made into consolidated cakes to be exhibited at the Marwar Chaitri cattle fair
- (b) Vegetable febrifuge:-
- (c) All sorts of oil paints.
- (d) Copal Varnish.
- (e) Water colour cakes and India ink stick.
- (f) Washable water colours for building.
- (g) Artistic fine art paints.
- (h) Soda-bicarbonates
- (i) A drawing camera called View adjuster was constructed of wood a new invention made by Atma Ram Gour Survey Officer.

(M) Exhibition.

91. As usual the exhibits relating to Marwar Industry and agriculture were well arranged for show and instruction at:-

- (a) the site of and during the grand Chaitri cattle fair held every year near Tilwara village along the bank of Luni river for a fortnight in charge of a special Committee under the Presidentship of Maharaj Shri Zalim Singhji. The concerned public were much benefitted.
- (b) the Imperial Forest Research Institute Dehra Dun and Commercial Museum Calcutta, where to the samples and exhibits of Marwar arts and industrial products were contributed. There, special separate stalls and show cases were allotted to Marwar province and they were much appreciated and advertised in their respective monthly publications and magazines, (vide copies of extracts attached in Appendix B.)

B B. Osmaston Esq. F. C. H., M. B. O. U, C. I. E. President, Forest Research Institute and College Dehra Dun,

in his letter No. 2712 dated 13-11-16 to the Superintendent of Forests Marwar, says ".....express my thanks for the very interesting collection of Marwar minerals and other industrial products which you have been good enough to collect for this Institute. I hope you will convey my best thanks to the Durbar for the same. The collection will constitute a valuable addition to our Museum....."

(c) Some other dealers and centres of business who were also supplied with sundry samples and exhibits of Marwar arts and industrial products.

(d) Messrs. Lidley, Aston, and Pilley of London, England who on receiving our Bagri lacquerware, in their letter dated 11th. May 1917, specially remarked ".....we are very pleased with the ware and feel sure we can do some business in it. The candle-sticks are especially attractive and"

If the enterprise be carried out on a large scale with the same spirit, energy and activity, the future prosperity of these concerns is anticipated to be promising.

(ii) Cattle Pound Supervision.

The cattle pounds at Jodhpur, Khundal, Sewari, Bawol, Bidiad, Bagol, Sadri, Saran, Jojawar, Kharchi, Balotra, Chittori, Nana and Chandawal remained under the supervision of the Department. The table below shows the number of cattle impounded and released the revenue derived and the expenditure incurred from November to August.

No.	Names of cattle pound.	Impounded	Released	Revenue realised	Expenditure incurred	
					Rs. as. p.	Rs. as. p
1	Jodhpur	967	973	942 9 0	363 10 6	
2	Kundal	155	155	25 8 0	14 11 0	
3	Sewari	138	138	99 9 0	37 7 0	
4	Bawal	857	855	276 9 3	34 1 3	
5	Bidiad	54	54	18 14 0	.....
6	Bagol	143	139	83 11 0	.....
7	Sadri	303	303	290 1 6	96 5 0	
8	Saran	254	254	105 7 0	49 12 0	
9	Jojawar	108	108	19 6 0	.....
10	M. Junction.	172	172	70 8 6	48 11 6	
11	Balotra	367	365	360 11 0	26 7 0	
12	Chittori	6	6	16 2 0	2 0 0	
13	Nana	202	201	30 3 6	0 4 0	
14	Chandawal	267	267	51 1 0	.....
		TOTAL	3,994	3,991	2,890 4 9	673 5 9

APPENDIX A.

REPORT OF SAMHIGGINBOTTAM, Esqr., AGRICULTURAL ADVISER,
JODHPUR STATE.

August, 24-31,—1915.

My visit to Jodhpur comes at a time when the country is not in a normal condition. There is the lowest recorded rainfall this year of any year. This follows several poor years, so things are about as bad as they can well be. The State is large and in the time at my disposal, I have not been able to see all parts of it, what I have seen, however, is encouraging to the agriculturist. I have not seen any trees dead from lack of moisture. Granting that the trees are of especial draught resisting varieties, this is still very remarkable. Also the hardier jungle grasses and weeds are still green, also a lot of Bajra will survive and give a crop if rain should fall within the next week. This all indicates a lot of soil moisture. Study and experiment by capable, trained men would show how this could be used for growing crops there are different types of soil in the State with differing water-holding and retaining capacities. These could be tested and systems worked out for them. Also I consider very encouraging beginnings have already been made by the gardens and nurseries under the Revenue Member and the Engineer. I believe the State could make much progress if a water survey were made. I consider one deep well boring outfit good for two or three thousand feet, also another good for depths up to five hundred feet, by making test boring all over the State would give a valuable body of information which would save a lot of time and money in getting agricultural improvements under way. For model farms could be started where there was sufficient water. I think this survey should come before any expensive schemes are started. A system of underground irrigation could be worked out for the State which would save ninety per cent of the water used, or to put it another way would allow a ten-fold increase of wet land or land under irrigation. A proper system of wells would be more sure than tank increase, for in the worst times tanks dry up, while with the wells bored deeply a regular unfailing supply of water is assured.

Then I believe a fully qualified staff of Agriculturists could soon have sufficient experience to advise and train the farmers of the State and increase the revenue very greatly.

I believe to plant long rows of trees at right angles to the prevailing wind, as wind-breaks, would prevent a lot of sand covering good land. The trees would have to be protected for the first few years. After that they would be valuable for wind-breaks and fuel supplies, thus allowing the manure to be used for field work. The leaves, pods and fruit would always have a value and in years like this would enable the people to tide over.

The State agriculturist staff could also work out the problem of reserves of fodder, in some districts Silos would be necessary, in others

stacks would work well. Some fodder is necessary every year to tide over the dry time. Owing to lack of reserve fodder to help out the grazing much retardation of growth in young animals and loss of weight in older animals is bound to occur and this means a loss of money. So reserves of fodder would be a form of cattle insurance that would pay well.

The animal husbandry of the State seems the most promising field for immediate endeavour. For by growing feed for animals and feeding it to the animals in the State the fertility of the soil is maintained; whereas the export of grain, oil-seeds, bones and fodder of all kinds causes a loss of fertility. By laying great emphasis on animal husbandry the fertility and productivity of the soil can be greatly increased.

The breeds of animals already within the State show that the soil feed, climatic and other conditions are well-suited to the production of animals of high money value.

A stud-farm, a cattle breeding farm, a special flock of sheep, a camel stud under the direction of an expert, frequent shows at which good prizes would be offered would all help very much. The natural bent of the farmers is also toward producing good live-stock.

An adequate agricultural staff with proper equipment would cost money. But money so spent is well invested and will bring a large return after a few years. So little is known of the possibilities of the soils of Jodhpur that for several years there might not be much visible return as most of the effort would be put forth in experiment and investigations.

My recommendations are:-

1. Have a water survey made of the whole State, and work out a scheme of underground irrigation.
2. Appoint an agricultural staff get the best men regardless for they are the cheapest in the long run.
3. Have model or demonstration or training farms and seed and stud-farms for special purposes in the various parts of the State. At these various farms a few bright, industrious boys might be taken and trained for the service of the State and often these boys are ready and at work, progress in agricultural matters would go by leaps and bounds all over the State.
4. Increase the Forestry staff so that the State may more rapidly be afforested.
5. Have reserves of fodder either stacks of hay or silos all over State at central and approximate points.
6. Do not begin any elaborate or expensive schemes until thorough investigation has been made as to their profitableness.
7. Regard the agricultural expenditure as an investment. Ten years of continuous, progressive, liberal and persevering effort should more than double the agricultural revenue and would indirectly benefit the Railways and every other State Industry.

APPENDIX B.

JODHPUR PRODUCTS.

By S. N. Chaterji, Librarian and Museum Assistant, Forest Research Institute Dehradun. U. P.

The Marwar Durbar have presented the Forest Research Institute with an interesting collection of samples of Economic and Industrial products of the State.

These consist of about 50 specimens of manufactured articles of different kinds of woods and minor forest produce and some 85 samples of minerals. The more important of these specimens are briefly described below:-

A.—Forest Products.

1. WOODWORK.

1. *Boswellia serrata* (Saler).

The Superintendent of Forest, Mr. Chatar Bhuj, states that the wood of this tree has hitherto been much neglected. A paper-rack made of this species displays the utility of wood in cabinet work. It takes a fine polish on a dark brown surface. The Superintendent draws the attention of Forest Officers to the possible uses of the wood.

2. *Odina wodier* (Gol)

The timber of this tree has also been much neglected. The Marwar Timber Factory use it now in carving work. An ornamental presentation casket made of this wood, with the name of the Forest Research Institute inscribed upon it, by inlayings of *wrightia tinctoria* and *Diospyros Melanoxylon* shows off the wood to advantage.

3. *Tecoma undulata* (Rohira)

A water basin and jug, a cup and the idols of Gauri and Ishwara (the Hindu god and goddess of prosperity) are the principal exhibits made of this wood. None of them show signs of warping or cracking. The timber, therefore, appears to deserve the name of "Marwar teak" given to it by the Superintendent of Forests.

4. *Wrightia tinctoria* (Khirni)

The most interesting articles made of this wood are a tea-set, a mounted cup, the figure of a lion, and a stationery rack with penholders. These holders compare favourably with the Bavarian type. The retail prices are very moderate.

II Lacquer work.

The centre of this industry is at Bujji. It is not an altogether new industry, but has been developed only recently. Toys, chessmen, a collar box, a tobacco jar, and mirror stands are among the exhibits.

The chief woods used in the lacquer work are *Crataeva religiosa*, *Tecoma undulata*, *wrightia tinctoria* and *Zizyphus* sp.

III.—IVORY WORK.

A factory has been started at Merta and appears to be doing well. Several articles including an imitation rose, a bracelet, a pearl case, walking stick and a penholder are shown. All show very fair workmanship.

Articles are also manufactured from Khas-Khas grass at Merta.

IV. Rocks and minerals.

A valuable collection of rocks and minerals found in Marwar constitutes not the least interesting portion of the exhibits.

It includes the following:-

- (1) Specimens of marbles of various colours and qualities.
- (2) Wolfram.
- (3) Cobaltiferous manganese are containing also copper and nickel in appreciable quantities.
- (4) Graphite, impure.
- (5) Asbestos. This is being worked experimentally.
- (6) Chalcedony.
- (7) Felspar (pink).
- (8) Soapstone.
- (9) Mica, of three kinds
- (10) Calcite.
- (11) Gypsum, an excellent cementing material.
- (12) Selenite.
- (13) Limestone.
- (14) Fuller's earth.
- (15) Common salt.

The preparation of the last named substance, obtained mainly from the Sambhar Lake, constitutes the chief and most important industry of the State.

In addition to the above, saltpetre, carbonate of soda, kaolin and yellow ochre occur to a limited extent.

The Superintendent of Forests, Jodhpur, has intimated his willingness to reply to any enquiries relating to any of the above products.*

*It is hoped that the example of this progressive and enlightened State will be followed by others who must be equally anxious to find markets for their indigenous products and to develop local industries.—(Hon. Editor.)

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Appendix.

Annual No. 46

Forest Department, Mawar State. Area of Forests for the year, 916-17.

(28)

Name of Division.	Name of Range.	Name of Parganah.	Name of Forest.	Area protected forest, Miles, during this year.			Area dis-protected forest this year.	Area, acres.	Net Area, miles	Number of trees.	Remarks.
				Acres	Miles.	Acres					
EASTERN DIVISION.											
Godhwar	...	Bali & Desuri	Nana to Bagal	1,21,230	194.11	...	...	1,24,230	194.11	...	
Sojat	D. suri & S. Jat	Jaitaran	Kot to Depwara	12,082	65.73	...	...	4,2085	65.75	...	
			Jagir	...	...	...	...	7,360	11.50	...	
Parbutsar	Parbutsar	...	Pi to Bidyal	7,360	11.50	...	...	7,360	11.50	...	
			Khaalsa	...	...	...	...	...	...	...
Jaitaran	...	Jaintan & Merta &c.	Bur ½	210	·37	·	...	240	·37	...	
			Jagir	...	...	...	...	...	...	...
Raipur	...	Jaitaran	Bar to Somal	4,030	6.37	...	...	4,080	6.37	...	
			Kalab to Giri	8,320	13.0	...	...	8,320	13.0	...	
Ghanerao	...	Desnri	Ghannerao	3,277	5.12	...	...	3,277	5.12	...	
			Total Reserve Forests	1,80,589	296.22	...	...	1,80,589	296.22	...	

				Khalsa.		For ests		Unclassed Forests	
Sojat	...	...	Sojat	...	...	60.0	60.0	...	...
				Hemliwars	...	40.0	40.0	...	...
				Borsan	...	1.86	1.86	...	1.96
				Udesi Kua	...	531.0	531.6	...	...
				Deoli Murdawar	...	560.8	560.0	...	...
Pali	...	...	Pali	...	...	25.60	25.60	...	...
				Bambholai	...	720.0	720.0	...	...
				Sampa	...	217.0	217.6	...	...
				Sowanis	...	174.8	174.8	...	...
				Khamal	...	118.0	118.0	...	...
				Sadawas	...	31.5	31.5	...	...
				Bomesdra	...	185.7	185.7	...	...
				Miniori	...	521.1	521.1	...	...
				Bala	...	454.4	454.4	...	...
				Nayagon	...	40.0	40	...	...

Annual No. 46.

Forest Department, Marwar State. Area of Forests for the year 1916-17

Name of Range.	Name of Pargua.	Name of Forest.	Area Protected forest miles	Area protected during this year miles	Area disforested this year.	Net Area. miles	Order of number	Remarks
Name of Range.	Name of Pargua.	Name of Forest.	Acres.	Acres.	Acres.	Acres	Acres	Acres
Reserved Forests								
Jaswantpura	...	Jaswantpura	...	1,510	2.35	...	1,510	2.35
		Uundablicca	...	4,325	6.75	...	4,325	6.75
		Javia...	...	1,378	2.15	...	1,378	2.15
		Sundamara	...	-	973	1.52	973	1.52
		Dorra B. Golana	...	-	-	-	-	-
		Jagir:	—	-	-	-	-	-
		Sunda block—	—	-	-	-	-	-
		Uchamnt to Purn.	—	-	-	-	-	-
		Dorra B.—Chekin to	—	-	-	-	-	-
		Raiwas.	—	-	-	-	-	-
		Jalore ...	...	7,625	11.91	...	7,625	11.91
		Jalore ...	...	...	...	...	...	...
		Alchirana	...	...	...	...	...	...
		Letan...	...	...	...	...	...	...
		Rejanvari	...	...	...	...	...	...

Western Division.

Annual Form No. 46

Forest Department, Marwar State, Area of Forests for the year 1916—17

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Annual Form No. 52.

Forest Department Marwar State Register of Breaches of Forest Rules during the year 1916-17.

Forest Range and Civil Pargana.	NEW CASES OF THE YEAR.			DISPOSED OF DURING THE YEAR.			REMARKS.
	Conviction Acquittal.		Total.	Conviction Acquittal.		Total.	
	Cases.	Persons.	Persons.	Cases.	Persons.	Cases.	
<i>A.—Cases tried by Magistrates.</i>							
Bali	3	...	...	2	2	2	2
Jalore	3	...	...	1	1	1	3
Jaswantpura	3	...	...	1	1	1	1
Jetaran (Rej.-ur)	3	...	...	3	3	3	3
Total	6	...	...	5	5	5	6
<i>B.—Cases compounded by Forest officials.</i>							
Bali	...	...	...	30	80	80	103
Desri	...	...	...	43	8	101	113
S. Jat	...	...	...	10	33	33	74
Depotrange	...	...	...	4	8	8	8
Pali	...	...	...	13	13	13	13
Janji Barmer Line	...	...	...	6	10	10	10
Parbatsar	1	...	...	37	3	44	44
Jataran	...	...	...	21	...	156	156
Sewana	...	...	...	96	21	156	156
Jalore	3	...	...	14	21	105	105
Jaswantpura	3	...	...	12	2	20	21
Jodhpur	...	...	...	13	1	16	16
Total Khalsu	3	1	1	200	278	104	581
Rajput	...	...	...	5	3	1	9
Ghantearo	...	...	...	4	...	4	4
Jetaran	...	...	...	4	...	4	4
Total Magiri	...	...	...	9	3	1	13
Total Cases compounded	...	3	1	209	281	105	596
							594
							708
							5

Annual Form No. 53

Forest Department, Jhansi State, Area of Forest Tracts Protected from Fire 1966-17.

Range.	Forest tracts.	Area in which protection is needed.				Last dry year to the period during which protection is to be implemented.	Area affected by fire during the period during which protection is to be implemented.	Area affected by fire during the period during which protection is to be implemented.	Grand Total	Remarks.
		Year	Protected	Protected	Protected					
Bali	Bali	...	...	1891	1,65,112	1,66,412	1,66,412	R. 86 A. 0
Desnri	Desuri	...	...	1891	...	...	36	0 0
Sojat	Sojat	...	...	1891	...	...	94	0 0
Sivana	Piploon, Sela, and Godhanal	...	...	1898	2,957	2,957	2,957	...
Jalore	Jalore and Aichhara	...	...	1898	8,832	8,832	8,833	...
Jaswantpura	Jaswantpura, Soonda & Dorra block	...	...	1898	8,086	8,086	8,086	...
			Total Jagir	...	...	1,94,987	1,36,287	1,36,287	1,86,287	216 0 0
Ghaurao	Ghanerao	...	...	1895	3,277	3,277	3,277	...
Parbatpur	Parbatpur, Basi, Banwal, Mayapnr Kal-	...	...	1897	7,360	7,360	7,360	...
			Yatra and Bidiad	...	...	1897	8,320	8,320	8,320	...
Bajpur	Kalib to Giri	...	...	1894	4,080	4,080	4,080	...
Jaitaran	Bar, Barantis, Babra and Sema	...	...	1896	...	...	...	...
Sivana	Makalsar, Ramania, Mevri,	...	...	1908	22,960	22,960	22,960	...
			Gungrot, Sener, Golia, Kand-	...	...	1909	7,168	7,168	7,168	...
			dal, Telwara and Bhugwan	...	...	1909	19,885	19,885	19,885	...
			Aichhara and Rajha...	...	...	1909	...	...	...	...
			Soonda and Dorra ...	...	...	1909	...	...	...	...
Jalore	Total	...	...	73,050	73,050	73,050	73,050	...
Jaswantpura	Grand Total	...	...	2,58,037	2,59,337	2,59,337	2,59,337	2'6 0 0

Annual Form No. 57.
Forest Department, Mysore State. Output (in cubic feet) of Timber and Fuel for the year 1916-17.

Range.	Timber in Rough L. Gs.		Timber in Rough L. Gs.		SAWN OR SQUARED TIMBER		MISCELLANEOUS		Fuel.		REMARKS.															
	Raj Agency.	Total	Raj Agency.	Total	Raj Agency.	Total	Raj Agency.	Total	Raj Agency.	Total																
Bali	1,223	20	216	1,648	912	1,308	1,111	32	90	6	4,718	361	4,216	16,187	76,217	23,340	1,17,744	21,950								
Desuri	2,140	2,446	3,267	204	6	135	3	4	151	205	328	1,1	1,31	9,700	22,759	47,583	58,187							
Golat	...	168	136	...	1,124	1,418	4,654	1,150	2	2	16	285	640	1,1	1,11	11,557	200	53,608	65,557							
Siwana	5	86	26	117	13	1	35	105	378	17	1,3	2,370	...	3,273	3,945							
Jalore	25	5	36	87	15	8	42	55	17	201	...	1,000	6,763	60	7,823	8,225						
Jaswantpura	...	37	113	...	150	93	371	...	925	1,394	4	4	1	34	3	594	3,471	300	4,468	6,051						
Parbnaar	136	...	139	...	...	288	...	...	2	1,199	...	1,199	...	1,626	...					
Jetaran	10	...	...	10	...	...	...	...	...	...	10						
Total Raj Deptt	1,586	586	...	3,48	5,132	3,263	7,805	20,1	1,840	3,238	5,532	651	2,034	...	6,630	9,372	1,33	1,1,076	46,168	2,35,698	27,598					
Rajpur Jagir	...	30	...	53	72	...	266	...	200	456	...	233	254	...	402	758	1,118	6,877	...	3,500	1,15,756	11,633				
Ghaueno Jagir	...	39	...	96	135	...	458	52	318	828	...	54	1	67	122	...	803	1,181	...	3,180	...	3,200	6,380	8,596		
Jalore	165	...	165	...	157	181	338	...	8	...	8	716	1,227	...			
Jaswantpura	1	...	171	172	...	4	...	4	7	...	2	9	...	60	...	60	245	...		
Jetaran	12	23	...	53	53	...	1,696	...	1,696	1,767	...		
Total Jagir Forests	...	69	...	616	715	...	737	217	689	1,613	...	59	158	501	718	...	514	8	1,393	1,505	1,113	11,813	...	7,416	20,427	25,468
GRAND TOTAL	...	1,586	655	...	4,126	6,367	8,963	4,000	217	8493	21,671	1,810	193	158	3,169	5,950	651	2,518	8	19,083	11,340	66,633	53,604	2,56,125	3,01,456	

APPENDICE LVIII.

Annual Form No. 58.

Outturn of Minor produce for year 1916-17.

37)

Range.	Description.	RAJ AGENOY.			PUR- OHASIS.			FREE GRANTS.			RIGHT HOLDERS.			TOTAL.			REMARKS.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	
Bamboos	...	3,054	149	7,502	241	...	...	8,700	91	3,700	91	14,256	484	...	...	...
Grazing	...	255	...	1,660	1,040	...	...	5,293	941	13,643	7,618	18,936	8,559	20,596	9,599	255
Grass (mounds),	90	...	...	...	...	...	...	...	...	...	...	1,015	514	
" (cart loads)	...	122	68	68	446	...	...	...	...	...	27	...	...	...	138	4
" (Head loads)	...	89	3	22	1	27	...	...	...	...	...	...	...	...	...	...
Honey and Wax (contract)	530	...	...	...	...	...	...	...	...	...	...	...	530	
Hides (Contract)	1,040	...	...	...	...	...	...	...	...	...	...	...	1,040	
Pala (carts)	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	3
" (Head loads)	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Palas (Head loads)	...	25	1	...	...	...	...	...	...	...	...	...	...	...	...	25
Juyali Do	...	3	...	7	2	...	...	...	...	...	...	...	...	...	...	2
Thornus (Cart loads)	11	...	...	...	...	...	...	...	...	...	...	...	11	
Mahora (Fruit)	25	...	...	...	...	...	...	...	...	...	...	...	25	
Fibra Lean	16	3	...	...	...	...	...	...	...	...	...	...	3	
Stone (Cart loads)	75	...	...	...	...	...	...	...	...	...	...	...	75	
" (Mines contract)	470	30	...	...	771	27	...	...	771	27	1,247	57		
Montiya (Head loads)	...	3	...	1	...	...	...	771	27	...	...	...	...	...	...	3
Kohisa oil	7	...	...	...	...	...	...	...	...	...	...	...	11	
Vegetables	7	
Miscellaneous	
Total Bali	...	260	...	3,076	...	417	...	1,059	...	7,618	...	8,677	...	12,459	...	...

		Desuri Range.		Sojat Range.		Siriwana.	
Bamboos	...	4,793	275	4,743	189	...	464
Grass (Head loads)	8	...	216	..	3	11	8
Do. (Herd load)	...	...	1,962	1,020	..	574	14
Grazing cattle	..	...	..	..	..	6,315	1,465
Stone (Cart load)	..	...	13	3	..	13	3
Do. (Cart load)	..	...	..	2	..	..	..
Do. (Head Do.	..	...	..	..	..	2	..
Do. (Contract)	..	...	..	..	..	..	..
Pala (Head loads)	..	...	..	..	..	..	..
" (Cart	..	...	..	..	..	..	..
Thorns (Cart load)	..	...	..	..	..	..	..
Mohiya grass (Head load)	..	...	..	..	..	..	..
Mahura fruits	..	...	..	..	..	..	..
Hides (No.)	..	...	..	..	..	..	..
Do. (Contract)	..	...	..	..	..	..	..
Miscellaneous	..	...	..	..	..	..	..
Total Desuri	..	283	...	1,541	..	445	13
" Range	..	543	...	4,619	..	1,504	2,283
					447	7,629	14,742
Bamboos	...	174	8	127	5	1,385	301
Grass (Head load)	..	...	15	1	..	92	13
Grazing cattle	..	...	101	58	..	1,385	23
Honey Hides (Contract)	..	...	..	259	607	2,619	1,400
Pala (Cart load)	..	...	..	7	..	..	665
Do. (Herd load)	..	...	..	36	..	..	2,750
Stone (Cart load)	..	...	..	23	..	..	259
Gurm fruits and (Leaves)	..	...	..	6	..	..	..
Oxen and Rye	..	...	..	115	..	..	7
Gundu	..	...	..	..	..	..	36
Miscellaneous	..	...	..	5	..	..	5
Total Sojat Range	..	50	...	459	..	607	301
Bamboos	...	522	49	4	..	..	13
Grass	..	4	4	106	8	1,767	1,767
Bore (Fruit) head loads	..	...	..	120	5	..	53
Pala (Head load)	..	...	..	42	4	..	53
Thorns (Cart load)	..	...	..	22	3	..	49

Annual Form No. 58.

Outline of Minor produce for year 1916-17.

(39)

Range,	Description.	RAJ AGENCY			PURCHASES.			FREE GRANTS.			RIGHT HOLDERS.			TOTAL.		REMARKS.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		
	Stone (Cart loads)	...	163	10	...	...	...	...	...	...	...	...	...	163	10		
	Do. Ass. Do.	...	884	14	...	...	...	...	...	...	...	...	...	884	14		
	Do. (Contract)	...	872	106	...	...	...	...	...	...	...	...	...	872	106		
	Hides	...	...	6	...	...	...	...	...	...	...	...	...	...	6		
	Grazing (cattle)	...	72	27	...	...	...	893	58	...	...	893	58	965	85		
	Total Siwana	...	53	...	183	...	...	...	58	...	53	...	111	...	347		
	Total Range	...	646	...	5,261	...	447	...	2,169	...	7,701	...	9,873	...	16,227		
	Grass contract and (cart load)	...	...	215	552	...	...	...	...	...	...	...	...	...	552	17	
	Do. (Head load)	...	...	350	17	...	...	...	...	...	...	...	...	...	215	22	
	Grazing	...	...	...	22	...	...	...	...	...	...	...	...	...	350	4	
	Stone (contract)...	...	...	...	48	...	...	...	...	...	...	...	...	...	...	2	
	Pala and Kunnut	...	...	...	2	...	...	...	...	...	...	...	...	...	...
	Miscellaneous	...	...	...	2	...	...	...	...	...	...	...	...	...	...
	Total Jalore	...	...	...	643	...	...	...	...	...	...	...	...	...	...	643	
	Bamboo	...	2,307	24	4,924	142	...	...	...	...	...	...	...	...	7,201	166	
	Grass (Head load)	...	...	...	232	2	...	...	...	...	...	...	...	...	232	2	
	Do. cart load)	...	...	...	119	54	...	...	...	...	...	1,743	241	1,713	119	54	
	Grazing	...	...	...	...	...	...	...	...	...	...	...	...	...	1,743	240	

Prabhatpur.

Grass	...	6,468	...	447	....	2,109	..	7,704	....
Grazing cattle	...								
Pala (Head load)	...								
Dasan	Do.								
Khayri Pala and many cont. in									
Stone contract	...								
Hides	Lis								
Total Parbatsar									

Juitar, N.

Grazing cattle	...	87	21	...	...	...	...	...	87
Grass	...	35	...	...	...	...	...	...	21
Contract loong and papri	...	12	...	...	...	...	...	...	35
Grass pala system	10	...	...	...	...	...	...	...	12
Total Juitaran	10	...	68	...	...	...	...	...	10
Grand Total	...	686	...	7,054	....	447	...	2,409	....
Annual Dork	...								

Jodhpur.

Grazing cattle	...	3,645	833	....	....	....	....	....	3,645
Grass	...								
Contract loong and papri	...								
Grass pala system	10	...							
Total Juitaran	10	...	68	...	...	...	...	...	78
Grand Total	...	686	...	7,054	....	447	...	2,409	....
Annual Dork	...								

Relating to

P. F. K.

Annual Form No. 58.

Outturn for Minor product for year 1916-7.

(41)

Range.	Descriptions.	RIGHT HOLDERS.						TOTAL.		REMARKS.	
		RAJ AGENCY		PDR- CH ASSES.		FREE GRANT'S.		FREE GRANTS.			
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		
Jaitaran	Hides	...	...	16	1	...	...	...	...	16
	Indigo contract	...	...	1	...	...	...	...	...	1
	Total	...	...	17	...	...	...	...	...	57
Rajpur	Grazing cattle	71	33	...	...	5,446	1,249	8,446	1,249	8,517
Sal or Leaves (Hath) load	...	16	1	...	...	...	...	...	...	16
Paha Bore Head load	8	1	...	...	...	...	...	...	...	8
Lung and Papri bunt contract	33	...	...	...	...	...	...	...	...	33
Honey and Wax contract	5	...	...	...	...	...	...	...	...	5
Hides	...	18	...	...	...	...	...	...	...	18
P'ula system	9	...	...	...	...	...	...	...	...	9
Total	...	100	...	...	...	...	1,249	...	1,249	1,349
Ramb. noes	...	...	...	...	...	...	...	...	...	...
Gangs	...	2,184	34	...	...	...	112	2	112	2
Do. Mohiya Head load	3,178	86	...	...	...	507	26	576	43	576
Do. Bidi cart load	20	1	...	...	...	...	9	...	9	9
Do. Bidi cart load	5	1	...	...	...	214	26	214	26	214
Do. Head load	5	1	...	...	...	...	...	...	...	...
Do. cart loads	506	16	...	...	...	106	20	7	126	7
Do. cart loads	6	1	...	...	...	...	...	...	...	...
Grazing cattle	80	30	...	...	...	...	...	...	...	...
Hides	5	...	...	...	...	...	...	...	...	...
Honey contract	8	...	...	...	...	...	...	...	...	...
Buli Ajja contract	24	...	...	...	...	...	...	...	...	...
Total	...	205	...	...	...	...	37	70	70	107
										312	

Gehanero

Annual Form No 59.

Forest Department, Marwar State, Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.

Particulars.	No. or quantity.	Cubic feet.	Total of each Head		Particulars.	No. or quantity.	Cubic feet.	Total of each Head.		Remarks.
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
Balance at commencement of the year:—										
BALI RANGE.	5,149				(1) TRUE DISPOSAL PURCHASED FROM DEPOT.					
Desuri	2,967				BALI RANGE.					
Sojat	...				Ins ('Khokat	2,175				
Deser Range.	...				Ur Lathia	2,030				
Siwana	2,191				Upla	...				
Jalore	0,359				Kanji	86				
Jaswantpura	1,424				Kasi Danda	2,279				
Jodhpur	4,216				Golla	11,646				
Pali	2,093				Dhanchan ('meli)	4				
Barmer Line	4,326				Dusar Kher	28				
True Receipts	...				Dhania	7,744				
BALI RANGE.	2,269				Th. bli	1,453				
Ins ('Khokat	307				Pat	2,13				
" Gole	2,265				Parag	72				
Upla	66				Mal	187				
Lathia upla	122				Matal	204				
Koni	45				Singh Kher	17				
Kumnt wood	2,323				Dhanu	89				
Kasi Danda	24				Suleri Kher	1				
Khirki wood	...				Hal Dhanu	504				
Golla	...				Hal 'arne	104				
					Pilila Kher	96				
					Paga Kher and Dhanu	574				

Annual Forum No. 59.

Forest Department Marwar State, Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.

Particulars.	TOTAL OF EACH HEAD			TOTAL OF EACH HEAD			Remarks.
	No. or quantity.	Cubic feet.	No or quantity.	Cubic feet.	No. or quantity.	Cubic feet.	
<i>Sujat Range.—</i>							
Ins Dhan ..	389						
Upla ..	398						
K.ii Dainika	2,984						
Golni Dhan	16,837						
Kana Do ..	46						
Dingar Dhan	5,088						
Do Khar ..	3,162						
Danda Dhan	8,110						
Bevala Do	237						
Minal Khar	59						
Th. shi Dhan	63						
Paga Jinji ..	25						
Pul Dhan ..	182						
Khurni ..	195						
Ma Yul ..	7						
Barsot Chokat	2						
Belawan ..	2						
Gangan Kana ..	2						
Do Kamri ..	152						
Abali ..	9						
Firujan (Hd Road)	1						
	14.						
	7 Mds.						
<i>Depot Jat.—</i>							
Kauj ..	41						
Kasi Danda ..	169						
Kaware Do ..	20						
Khurni wood ..							
Golia Dhan ..							
Dingar Dhan ..							
Do Khar ..							
Chokni Danda ..							
Thobli Dhan ..							
Paga ..							
Bevala ..							
Danda Dhan ..							
Musal Khar ..							
Mayal ..							
	2						
	68						
	38						
	32						
	547						
	43						
	2						

Gole Bund ...	10	Singri ...	39
Patia Salar ...	5	Hul Dhau ...	19
Kumat wood	47	Do Sarsas ...	373
		Insia Dhan ...	364
		Upia ...	69
		Lathia Do ...	23
Deor JAT ...		Do Gole ...	148
Danda ...		Pida ...	2
Mural Khar		Gole Bund ...	95
Meyal ...		Lathia Ins ...	13
Lathia upia	2	Sivana Range —	836
Kanna ...	3	Pida Dhan ...	198
Kumat wood	21	Golia ...	872
	5	Ins Bore ...	737
		Upia ...	23
		Kosi Danda ...	23
		Onothia Kana ...	82
		Gangran ...	4
		Bevala ...	91
		Lathia Ins ...	15
		Upia ...	1
Sivana <i>an e.</i> —		Singri Khar ...	36
Pi a Dhan	14	Hal Dhan & Sars ...	30
Golia ...	26	Thobli ...	2,493
Insia Bore ...	2		
Upia ...	154	Jodhpur Range —	
Kasi Danda	833	Bala Dhan ...	730
Nimb wao !	1	Thobli ...	48
Chokni Kana	35	Sliper ...	861
Timchiyा ...	30	Kari ...	84
Mekha ...	200	Naropla (Nimous) wood	27
Gangarua ...	107	Bt ui ja wood ...	25
Bevala	25	Bant Pagi ...	107
		Baful wood ...	1
		Kumut wood ...	95
		Tunchiyā ...	20
Jodhpur Range —		Salar (Tree) ...	12
Khejari wood	4	Gale ...	16
Rabil wood	1	Lathia Roha ...	2
Timchiyā ...	29	Khinni ...	14
Danda ...	93	Golia ...	479
Jaswantpura —			
Adhari ...	54		
Salur Thakar	9		
Danda Dhan	582		

Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 19^{06-17.}

Statement of total or sold locally during the year 1916-17.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No or quantity.	Cubic feet	TOTAL OF EACH HEAD.		REMARKS.
			No or quantity.	Cubic feet.				No. or quantity.	Cubic feet.	
Hal Dhan	42	Dingar Dhan	390						
Gujia	48	” Khar	170						
Adan	4	Kari Danda	31						
Ins Latha	108	Latha Upna	...						
” Dhan	136	Salya ...	1						
Pagi Bor	...	14	Kawari Danda	103						
Jalore <i>lātāgī</i> —			Chuknai ”	13						
Salar Phantak	...	21	Hal ”	56						
Upna Gol	10	Beyula ...	1						
Kusi Danda	...	287	Upna ...	3						
Total true receipt ...			Ins ...	13						
			Olatan ...	17						
			Latha Ins ...	76						
			...	2						
Cross Receipts	89,848	J. SWANTPURA, —							
Sojat		Adhan ...							
Depot Jat	7	Singri Dhan	17						
Sivana	16,416	Ins Latha ...	22						
Jodhpur	2,492	Sair Thakar	17						
Barm r. line &c	...	2,836	Ins Dhan ...	2						
Total Gross Receipts	1,032	Danda Dhan ...	56						
GRAND TOTAL		Paya ...	238						
			Hal Dhan ...	2						
			Mayal Do ...	1						
			Upla Bore ...	4						
			Mus ...	2						

ANNUAL FORM NO. 59.

* Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to Sale Depot or sold locally during the year 1916-17.

Particulars.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.	REMARKS.
	No. or quantity.	Cubic feet.							
			Bank	...		42			
			Bunrh	...		1			
			Mekha	...		31			
			Thoblia	...		3			
			Danda	...		13			
						120			
<i>Desuri Range.—</i>									
In ^{rs} Chokat	...			20					
" Lathia	...			2					
Upla	...			9					
Kani	...			2					
Golia	...			8					
Danah	...			23					
Dingarkhatri	...			21					
Thobli	...			6					
Paga Bor	...			11					
Mayal	...			2					
Mirjal	...			1					
Saint Thakur	...			1					
Singri	...			25					
						340			
<i>Sonit Range.—</i>									
In ^{rs} Dhan	...			25					
Upla Do	...			24					
Kasi Damia	...			13					
Golia Dhan	...			14					
Kali Do	...			1					

Dingar Do	50	215
Do Khar	59	59
Danda Dhan	414	414
Thobli	14	14
Paga	4	4
Pida Dhan	4	4
Musai	6	6
Meyal Dhan	6	6
Bank	38	38
Pagi	14	14
Barsot Chokut	2	2
Gole	6	6
Bevala	1	1
Firangan Hd. Id.	5	5
Dhancha (Oarne)	7	7
Depot JAT.—		
Kani	15	15
Kasi Danda	41	41
Dingar Dhan	32	32
Thobli	1	1
Danda	175	175
Insai	8	8
Upia	3	3
Firangan Hd. Id.	9	9
Gol bund	62	62
Latha Ins	1	1
	287	
<i>Sivana Range.—</i>		
Pida Dhan	14	14
Gole	29	29
Ins Bore	2	2
Upia	58	58
Nimh wood	1	1
	104	
<i>Jaswanhpura.—</i>		
Abbari Salar	4	4
Danda Dhan	24	24

Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

Particulars.	Total on EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	Cubic feet.	No. or quantity.	Cubic feet.	Cubic feet.	Total on EACH HEAD.	REMARKS.
	No. or quantity.	Cubic feet.									
			<i>Bamer Line</i> —								
			Singri Dhan	...			3				
			Thobli	...			3				
			Golia	...			19				
			Bevals	...			2				
								27			
									1,915		
			Total Utilised by Department.								
			STRUCK OFF ON ACCOUNT OF SHORTAGE DECAY.—								
			<i>Baij Range</i> .—								
			Karya Tree	...			3				
			Khirni	...			69				
			Gol log	...			47				
			Thobli	...			11				
			Salar Tree	...			70				
			Hal Dhanu	...			6				
									206		
			<i>Sojat Range</i> .—								
			Khirni	...			19				
			Danda	...			459				
			Depot JAT.—								
			Ins	...			18				
			Upla	...			16				

		33	33
<i>Jodhpur Range—</i>			
Sleeper ...	...	129	2
Bank Pagi ...	...	2	2
Golia ...	...	5	5
Dingar Dhaу ...	...	133	
<i>Sivana Range—</i>			
Golia ...	...	56	
Ins Bore ...	...	37	
Upla ...	...	61	
<i>Jaswanthpur a—</i>			
Danda Dhaу ...	...	60	
Paga ...	...	4	
Barmer Line			
Golia ...	...	9	
Gangaru Chitiya	...	61	
Total Struck off	...		70
GRAND TOTAL True	...		
Disposal ...	...	
II Gross Disposal			
Bali ...	...	4,538	
Desuri ...	...	447	
Sojat ...	...	11,620	
Depot Jat ...	...	2,888	
Sivana ...	...	1,026	
Barmer Line	...	306	
Pali ...	...	2,033	
Balance at close of the year—			
Bali ...	...	3,044	
Desuri ...	...	2,374	
Sojat ...	...	13,543	
Depot Jat ...	...	6,523	
			22,913

Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

TRUE RECEIPTS—

Bali	...	8,089	6	4
Desuri	...	8,380	52	8
Sojat	...	10,107	21	3
Derot	...	1,229	36	0
Siwana	...	459	0	0
Jodhpur	...	1,830	18	0
Jalore	...	22	0	0
Barmer Line	...	—	—	—

Gross Receipts—

Depotat	...	30,158	20	8
Siwana	...	27	0	0
Barmer Line	...	22	0	0
Jodhpur	...	30,736	10	0

FIREWOOD (GRAND TOTAL)

1,94,932	36	142
60,924	30	8

Depotat	...	30,425	21	31
Siwana	...	22	0	0
Barmer Line	...	—	—	—
Gross Receipts—				
Depotat	...	30,158	20	8
Siwana	...	27	0	0
Barmer Line	...	22	0	0
Jodhpur	...	30,736	10	0
Depotat	...	60,924	30	8
Siwana	...	—	—	—
Barmer Line	...	—	—	—
Total Gross Disposal	...	60,924	30	8
Total Disposal	...	1,22,573	37	13
BALANCE AT CLOSING OF THE YEAR.—				
Bali	...	20,293	19	8
Desuri	...	27,447	11	0
Sojat	...	13,881	27	4
Depotat	...	8,340	33	15
Siwana	...	253	5	8
Jaswantpura	...	335	8	0
Burner Line	...	3	0	0
Jodhpur	...	823	0	14 ¹
Jalore	...	1,196	18	0
GRAND TOTAL	...	72,358	39	1 ¹
		194,932	36	142

Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

BALANCES AT COMMENCEMENT OF THE YEAR—		BALANCES AT CLOSE OF THE YEAR—	
Bali	...	Bali	34 19 6
Desuri	...	Desuri	101 29 0
Sojat	...	Sojat	82 7 0
Depotat	...	Depotat	140 13 2
Jalore	...	Jalore	2 35 0
Jodhpur	...	Jodhpur	100 23 14
Barmer Line	...	Barmer Line	55 33 10
			518 0 34
			7,728 5 9
GRAND TOTAL		GRAND TOTAL	
B a m b o o S		True Disposal—	
		Bali	2,719
		Desuri	4,787
		Sojat	119
		Depot	6,906
		Siwna	422
		Jodhpur	2,962
		Barmer Line	659
		Jaswantpura	3,038
			21,612
Department use.—		Department use.—	
		Bali	148
		Desuri	91
		Sojat	55
		Depotat	467
		Jaswantpura	24
		Barmer Line	1
			996
Struck off—		Struck off—	
		Bali	26
		Depotat	4
		Jaswantpura	1,000
			1,030
Gross Disposal.—		Gross Disposal.—	
		Bali	2,703
		Desuri	198
		Depotat	1,812
		Siwna	830
		Barmer Line	79
			5,622
Total Disposal		Total Disposal	
			29,070

BALANCES AT CLOSE OF THE YEAR—		BALANCES AT CLOSE OF THE YEAR—	
Bali	...	Bali	34 19 6
Desuri	...	Desuri	101 29 0
Sojat	...	Sojat	82 7 0
Depotat	...	Depotat	140 13 2
Jalore	...	Jalore	2 35 0
Jodhpur	...	Jodhpur	100 23 14
Barmer Line	...	Barmer Line	55 33 10
			518 0 34
			7,728 5 9

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Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

BALANCE AT CLOSURE OF PREV. YEAR.—		TRUE DISPOSAL.—		4,985		1,985		4,985		1,985	
Bali	...	Bali	...	3,489	31	0	0	6	7	0	0
Sojat	...	Siwan	...	2,688	15	0	0	6	7	0	0
Depot	...	Depot	...	5,102	30	0	0	6	7	0	0
Desuri	...	Desuri	...	695	10	0	0	6	7	0	0
Jodhpur	...	Jodhpur	...	509	11	0	0	6	7	0	0
GRAND TOTAL		...		1,1087		30	8	1,1087		30	8
Departmental grass. TRUE DISPOSAL.—											
Bali	...	Bali	...	...	...	...	...	...	...	...	...
Siwan	...	Siwan	...	...	...	...	...	...	...	...	...
USED BY DEPARTMENT.—		...		...		...		...		...
STOCK OFF.—		...		...		...		...		...
Siwan	...	Siwan	...	...	...	...	...	...	...	...	...
BALANCE AT THE END OF YEAR.—		...		...		...		...		...
Bali	...	Bali	...	206	0	0	0	206	0	0	0
Desuri	...	Desuri	...	...	...	...	...	...	...	...	...
Siwan	...	Siwan	...	...	...	...	...	...	...	...	...
Jaswantpura	...	Jaswantpura	...	...	...	...	...	...	...	...	...
Jodhpur	...	Jodhpur	...	...	...	...	...	...	...	...	...
GRAND TOTAL		...		...		...		...		...
GRAND TOTAL ... TRUE DISPOSAL.—											
Bali	...	Bali	...	0	0	4	0	0	0	0	0
Depot	...	Depot	...	0	0	0	4	10	0	0	0
Siwan	...	Siwan	...	0	0	0	5	0	0	0	0
Jodhpur	...	Jodhpur	...	0	0	0	12	0	0	0	0
Barmer Line	...	Barmer Line	...	0	0	0	40	39	0	2	37
Jaswantpura	...	Jaswantpura	...	0	0	0	4	37	0	2	367
DEPARTMENTAL USE.—		...		...		...		...		...
Barmer Line		...		...		...		...		...
STOCK OFF —		...		...		...		...		...
Bali	...	Bali	...	0	0	0	0	0	0	0	0
Jaswantpura	...	Jaswantpura	...	0	0	0	0	0	0	0	0
Barmer Line	...	Barmer Line	...	0	0	0	0	0	0	0	0
Sojat	...	Sojat	...	0	0	0	0	0	0	0	0
GRAND TOTAL		...		...		...		...		...
BALANCE AT START OF THE YEAR.—											
Bali	...	Bali	...	34	0	0	0	0	0	0	0
Depot	...	Depot	...	93	0	0	0	4	10	0	0
Jodhpur	...	Jodhpur	...	15	26	63	0	5	0	0	0
Jaswantpura	...	Jaswantpura	...	82	39	15	0	12	0	0	0
TRUE RECEIPTS.—		...		...		...		...		...
Bali	...	Bali	...	46	2	6	793	0	0	0	0
Siwan	...	Siwan	...	4	21	8	cart 1	0	18	0	0
Jodhpur	...	Jodhpur	...	0	28	0	16	0	18	0	0
Jaswantpura	...	Jaswantpura	...	4	11	8	0	0	24	0	0
Barmer Line	...	Barmer Line	...	388	4	0	0	0	35	5	0
Sojat	...	Sojat	...	3	0	0	5	396	27	6	718

58

Bali 1835 &
Desuri 150

1.842	8	6	125
2.054	15	14	7,095

52
0 18 0 30 19

Annual Form No. 59.

Forest Department Marwar State. Account of timber and other produce cut or collected by Raj Agency and brought to sale Depot or sold locally during the year 1917-18.

Particulars.	No. of quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		REMARKS.
			No or quantity.	Cubic feet.				No or quantity.	Cubic feet.	
OPEN RECEIPTS.—										
Depotjat	3 0	0	5 Bgs.		Bali	15	8 12	16		No.
Depotjat	6 33	0	No. 16		Depotjat	3	0 0	5		
Siwana	12 1	0			Siwana	4	34 8	16		
Jodhpur	11 5	4	.8		Jaswantpura	0	29 4	...		
Barmer Line					Sinjat	3	0 0	5		
					Bulotra	6	6 12	...		
								32 39	4	32 10 1
Total					TOTAL DISPOSAL					
GRAND TOTAL			622 36 15 $\frac{1}{2}$	785	RAJAS OR AT CLOSE OF THE YEAR.					
					Bali	31	33 6	721		No.
					Depotjat	88	30 0			
					Siwana	1	20			
					Jodhpur	16	15 6 $\frac{1}{2}$	22		
					Jaswantpura	51	29 14			
					Barmer	1	25 9	5 1		
										No.
					Total Balance	191	34 2 $\frac{1}{2}$	751		
					GRAND TOTAL	622	36 15 $\frac{1}{2}$	785		

Annual Form No. 61.

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Forest Department, Marwar State. Summary of Revenue of

Budget Heads.	SADAR.	EASTERN DIVISION			
	Sadar.	Bali	Desuri	Sojat	Depot Range.
I.—Timber and other Forest produce removed from the forest by Raj agency :—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
(a) Timber	618 8 6	5,078 11 9	1,679 12 0	3,456 12 9	965 1 0
(b) Firewood and Charcoal	10,982 2 5	2,411 0 0	546 9 9	276 14 6	5,827 8 3
(c) Bamboos	3 3 6	148 9 0	274 8 0	5 9 3	363 6 0
(d) Grass and other minor produce ...	843 8 0	109 9 0	8 8 3	2 0 0	2 2 0
II.—Timber and other Forest produce removed from the forest by purchasers or consumers :—					
(a) Timber ... ... ...	...	1,560 11 3	887 11 3	1,416 9 3	1 0 0
(b) Firewood and Charcoal	425 9 9	2,012 1 3	951 14 0	3,561 3 3	...
(c) Bamboos ... ... ...	...	335 5 9	189 0 3	5 7 3	...
(d) Grazing and Fodder grass ...	...	2,045 2 9	1,468 3 6	665 14 9	3 10 0
(e) Other minor produce ...	27,980 0 9	1,750 10 3	381 2 0	385 2 3	0 12 0
III.—Confiscated drift and waste wood ... ...	...	4 0 0	5 8 0	...	...
IV.—Revenue from forests not managed by Raj :—					
(a) Duty on foreign timber ... ...	...	357 1 6	1,387 14 0	509 11 3	...
(b) Revenue from shared and private forests ... ...	...	...	...	...	...
—Miscellaneous :—					
(a) Fines and forfeitures ... ...	...	12 1 6	...	...	...
(b) Refund	1 0 0	...	0 11 0	...	...
(c) Other sources	79 4 6	467 4 0	581 13 6	198 6 3	14 5 4
Total Forests ...	40,953 5 5	16,299 4 0	8,366 3 6	10,493 10 3	7,157 12 7
Fuel and Fodder Reserves ...	246 12 0	...	...	...	71 4 0
Total Forest Conservancy ...	41,180 1 5	16,299 4 0	8,366 3 6	10,493 10 3	7,229 0 7
Add Geology ... ...	...	...	...	...	...
" Arboriculture ...	...	...	...	...	...
" Cattle pound ...	...	...	...	...	...
" Grass storage ...	...	...	...	...	...
" Agriculture ...	...	...	...	...	...
Total Raj Department ...	...	...	...	...	...
Hanipur ... ...	...	...	...	...	...
Ghumerao ... ...	...	...	...	...	...
Hansol ... ...	...	...	...	...	...
Bardoli ... ...	...	...	...	...	...
Balika ... ...	...	...	...	...	...
Gandoli ... ...	...	...	...	...	...
Uchmat and Chokhlan (Jaswantpura) ...	...	...	...	...	...
Kotar &c. (Jaleze) ...	...	...	...	...	...
Grand Total ...	...	...	...	...	...

Form No. 61.

Different Ranges of Marwar Forests during 1916-17.

WESTERN DIVISION.			DIRECTION.						TOTAL.
Siwan	Jalore.	Jaswantpura	Jodhpur.	Patbalsdr.	Pali.	Barmer line.	Jeturam.		TOTAL.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
440 4 3	38 2 0	111 4 6	244 6 0	...	...	170 3 6	4 4 0	12,797 6 3	
166 7 6	267 8 0	454 12 6	12,981 7 9	...	180 0 0	15 13 6	950 11 3	35,060 14 11	
49 6 3	...	36 12 0	20 4 3	...	...	33 8 3	...	925 2 6	
4 5 9	0 0 3	52 6 3	93 11 9	...	...	26 3 3	5 0 0	1,147 6 0	
116 12 0	228 8 0	283 1 0	...	40 4 3	...	...	58 10 6	4,593 6 6	
38 8 0	111 2 6	47 2 6	...	41 8 0	4 0 0	...	3 5 6	7,203 6 9	
0 2 0	0 1 6	113 13 6	...	...	...	...	...	673 14 3	
92 0 3	591 9 0	296 7 10	...	378 13 9	...	...	56 1 6	5,557 15 4	
151 4 6	62 4 0	865 15 3	...	135 14 9	...	...	11 12 0	31,227 18 9	
...	...	...	...	...	...	...	...	9 8 0	
2 0 0	...	2 0 0	...	...	...	...	...	2,258 10 9	
8 2 0	43 1 9	...	...	...	...	...	88 13 3	140 1 0	
...	...	...	...	...	...	...	...	12 1 6	
0 9 0	...	1 0 0	...	...	...	...	...	3 4 0	
696 11 3	221 5 3	278 4 6	...	215 12 0	...	5 12 0	6 1 3	2,767 15 10	
1,761 6 9	1,518 10 6	2,116 4 7	13,339 16 9	812 4 9	184 0 0	251 8 6	1,184 11 3	1,04,418 15 10	
...	...	...	1,213 8 5	...	673 8 9	83 10 6	...	2,288 11 8	
1,761 6 9	1,518 10 6	2,116 4 7	14,553 6 2	812 4 9	857 8 9	335 3 0	1,184 11 3	1,06,707 11 0	
...	...	...	...	...	...	...	...	16,448 3 0	
...	...	...	...	...	...	...	...	1,472 6 6	
...	...	...	...	...	...	...	...	1,826 15 0	
...	...	...	...	...	...	...	...	2,417 9 9	
...	...	...	...	...	...	...	...	32 5 0	
...	...	...	...	...	...	...	...	1,28,905 2 3	
...	...	...	...	...	...	...	...	6,034 13 9	
...	...	...	...	...	...	...	...	1,054 1 3	
...	...	...	...	...	...	...	...	168 0 0	
...	...	...	...	...	...	...	...	173 2 0	
...	...	...	...	...	...	...	...	177 12 9	
...	...	...	...	...	...	...	...	178 4 0	
...	...	...	...	...	...	...	...	627 5 6	
...	...	...	...	...	...	...	...	217 6 6	
...	...	...	...	...	...	...	...	1,36,476 3 0	

Forest Department Marwar State. Summary of

Budget Heads.	Sadar.	EASTERN DIVISION			
		Bali.	Desuri.	Sejat	Depot Range.
A—Conservancy and works.					
I.—Timber and other produce removed from the Forests by Raj Agency—					
(a) Timber	74 5 3	2,001 5 9	639 1 3	916 15 6	187 6 11
(b) Fire-wood	911 11 6	2,837 0 3	63 7 0	5,022 14 0	2,696 3 0
(c) Bamboos	19 12 0	145 5 0	118 7 6	1 15 0	23 14 0
(d) Grass and Minor produce...	266 1 6	140 6 6	177 1 6	42 8 6	10 4 9
II.—Timber and other produce removed from the forests by purchasers— or consumers	451 3 10	36 10 0	...	62 2 0	...
III.—Confiscated drift and waif wood ...	...	...	...	...	...
IV.—Revenue from forests not managed by Raj—					
(a) Duty on foreign timber and other forest produce ...	...	...	...	...	...
(b) Revenue from shared and private forests ... ...	...	...	...	...	...
V.—Revenue from leased forests and payment to share holders in forests managed by Raj—	...	...	...	...	...
VI.—Live stock stores tools and plants—					
(a) Purchase of Cattle ...	...	...	...	32 2 0	...
(b) Keep and feed of Cattle ...	...	...	...	...	...
(c) Purchase of stores Tools and plants	65 8 9	21 14 0	2 6 0	16 14 0	7 11 6
VII.—Communications and Buildings—					
(a) Roads and Bridges ...	102 15 6	193 3 6	92 12 6	239 12 6	...
(b) Buildings	36 1 0	67 5 0	199 7 9	202 9 6	49 15 6
(c) Other works ... ...	...	...	...	...	...
VIII.—Demarcation Improvements and extension of Forests—					
(a) Demarcation	11 12 0	5 2 0	4 11 0	169 0 0	...
(b) Compensation of lands ...	1,291 6 9	...	49 8 0	166 10 0	...
(c) Surveying and working Plans ...	2,107 4 11	0 8 0	25 13 9	83 10 0	13 11 0
(d) Sowing and Planting ...	38 15 0	88 0 3	82 6 0	260 10 0	56 14 6
(e) Protection from fire ...	...	86 0 0	36 0 0	94 0 0	...
(f) Other works ... ...	...	1 4 0	21 14 6	...	...
IX.—Miscellaneous—					
(a) Refunds	1,129 0 6	...	...	0 3 0	...
(b) Law charges ... ...	...	...	...	...	...
(c) Other charges	1,887 1 0	0 12 0	26 8 6	9 12 0	...
Total A Conservancy	7,393 3 6	5,624 12 3	1,459 9 3	7,621 10 9	3,046 1 2

—(Continued).

Expenditure of different Ranges in Marwar Forests during 1916-17.

WESTERN DIVISION.			DIRECTION DIVISION.					TOTAL.
Siwana.	Jaloro	Jaswantpura	Jodhpur	Parbatsar.	Pali	Badmer Line.	Jahuran	
40 5 6	30 5 9	121 15 0	253 3 9	...	...	1 1 0	...	4,166 1 3
47 14 0	210 1 6	0 8 0	5,686 6 10	...	...	13 15 6	...	17,320 1 7
40 13 9	...	4 11 9	49 8 6	...	...	...	...	404 10 6
20 12 0	12 5 9	101 5 0	188 5 3	...	...	...	...	962 2 9
...	...	21 8 0	7 9 0	...	...	...	...	579 0 10
...
...	...	10 0 0	...	...	...	...	...	10 0 0
...
...
...
...	...	...	...	...	...	...	...	32 2 0
...
2 8 0	1 13 6	3 3 6	76 1 1	3 8 0	0 4 0	...	...	221 12 4
...	21 6 6	...	...	...	...	...	...	650 2 6
9 15 0	72 8 0	7 6 0	702 4 6	39 9 0	4 8 0	...	...	1,391 10 0
5 0 0	...	0 8 0	...	...	...	...	...	5 8 0
...	1 0 0	...	...	...	...	...	...	191 9 0
...	...	...	...	...	...	...	...	1,507 8 9
...	...	...	5 2 0	...	...	...	...	2,236 1 8
20 6 0	130 0 3	137 6 6	4 4 0	6 12 0	...	...	...	1,815 11 9
...	...	...	...	...	...	...	...	216 0 0
...	...	2 8 0	...	...	...	...	...	26 10 6
...	...	...	...	...	...	...	...	1,129 3 6
0 10 0	...	...	...	...	...	...	...	0 10 0
46 4 9	2 8 0	0 10 0	82 0 9	0 8 0	...	...	...	1,070 1 0
234 9 0	615 2 0	414 12 9	6,951 14 2	50 5 0	4 12 0	16 0 6	0 0 0	33,011 12 4

Forest Department Marwar State. Summary of

Budget Heads	Sadar	EASTERN DIVISION				
		General	Bali.	Desuri.	Sojat	Depot Range
Brought forward Total A.	7,393 3 6	...	5,624 12 3	1,439 9 8	7,321 10 9	3,046 1 2
B—ESTABLISHMENT.						
I—Salaries—						
(a) Superior Establishment...	2,400 0 0	...	...	...	...	...
(b) Executive ...	...	900 0 0	200 0 0	180 0 0	479 12 0	...
(c) Protective ...	226 0 3	...	1,479 5 3	1,020 8 3	1,569 3 0	235 12 0
(d) Office ...	2,320 11 6	271 10 1	142 8 0	...	74 9 6	...
(e) Pension Contribution ...	...	...	...	...	...	...
II—Travelling allowances—						
(a) Superior Establishment...	319 13 9	...	...	...	...	...
(b) Executive "	...	169 3 3	120 7 0	71 1 3	143 3 9	...
(c) Protective "	100 12 5	1 14 9	206 15 3	85 8 0	92 8 3	80 14 9
(d) Office "	147 12 3	50 2 6	6 2 0	...	14 11 9	...
(e) Keep and of Conveyance	360 0 0	180 0 0	120 0 0	90 13 0	180 0 0	...
III—Contingencies—						
(a) Stationary ...	421 15 9	...	0 2 0	1 2 6	...	2 9 0
(b) Tents and record	5 2 0	...	1 4 0	...	...	3 8 0
(c) Rents, Rates & Taxes ...	...	...	2 4 0	...	...	...
(d) Official Postage	390 1 0	...	...	...	...	...
(e) Sundries	1,085 12 3	27 15 9	25 6 6	9 9 6	22 4 0	25 2 6
Total B Establishment	7,778 1 2	1,600 14 4	2,904 6 0	1,458 10 6	2,576 4 8	297 14 3
Total A. and B	15,171 4 8	1,600 14 4	7,989 2 3	2,698 3 9	5,897 15 0	3,343 15 5
Fuel and Fodder Reserves ...	...	...	...	...	30 9 6	110 10 0
Total Forest	15,171 4 8	1,600 14 4	7,989 2 3	2,898 3 9	9,978 8 6	3,484 9 5
Add Geology ...	...	...	...	...	...	...
" Arboriculture	...	...	...	...	...	...
" Agriculture Farm	...	...	...	...	...	...
" Grass Storage	...	...	...	...	...	...
Total Raj Department	...	...	...	...	...	...
Rajpur ...	...	...	...	...	...	...
Ghanerao	...	...	...	...	...	...
Bal ...	...	...	...	...	...	...
Barautia ...	...	...	...	...	...	...
Babra ...	...	...	...	...	...	...
Somel ...	...	...	...	...	...	...
Uchmat &c (Jaswantpura)	...	...	...	...	...	...
Total Jagir	...	...	...	...	...	...
GRAND TOTAL	...	...	...	...	...	...

Expenditure of different Raigars in Marwar Forests during the year 1916-17.

Annual Form No 62.

Forest Department Marwar State Account Current for the year 1916-17.

	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cash Balance (Imperial)	6,075 0 0	6,075 0 0	6,075 0 0	Remittance to treasury including F. F. R	1,06,687 14 7
Revenue as per Annual Form No. 61:-				Forest revenue in cash and adjustment including F. F. R	1,471 11 6
Forest Conservancy including Fuel and Fodder reserves	1,06,707 11 6	...		Geology	16,438 2 6
Arboriculture	1,472 6 6	...		Agriculture Farm	1,326 2 6
Jodhpur Agriculture Farm	1,826 15 0	...		Cattle pound...	2,209 10 0
Cattle pound...	2,417 9 9	...		Grass storage	32 5 6
Grass storage	32 5 7	...		Payment as refund of advances etc. Expenditure as per Form No 61.	1,305 15 0
Geology	16,438 3 0	1,28,905 3 3		Forest Conservancy including Fuel and Fodder	58,200 0 10.
Revenue in advance or unsettled shares	...	1,747 3 6		Geology	1,846 14 1
Advances by recoupment of Imprest expenses and direct payment from treasury and adjustment by book transfer	84,721 15 7	84,721 15 7		Arboriculture	12,452 6 9
Total	...			Agriculture ...	8,626 9 8
				Grass storage through this office	81,125 15 4
				Imprest	...
				Balance in Hand	...
				Total	3,596 0 3
					6,075 0 0
					1,180 9 2
					2,21,449 6 4
					2,21,449 6 4

Annexure 33 No. 63.

Forest Department, Marwar State, Revenue Received and outstanding on account of Revenue during the year 1916-17.

Ranges.	Particulars.	Balance at commencement of the year.	Value of Sales.	Total.	Realised during the year.	Balance	Remarks.
	Forest Conservancy	...					2
Balk ...	R. I. a. ...	493 10 3	12,602 5 9	13,096 0 0	12,197 6 3	298 9 9	
Desuri	R. I. b. ...	5,739 0 3	36,335 14 4	42,065 14 7	35,060 14 11	7,004 15 8	
Sohia.	R. I. c. ...	181 14 6	829 2 0	1,011 0 0	925 2 6	85 14 0	
Sivana	R. I. d. ...	531 10 6	1,367 4 3	1,901 11 9	1,147 6 6	75 1 8	3
Jalore	R. II. a. ...	181 0 0	4,510 9 6	4,691 9 6	4,593 6 6	98 3 0	
Jaswantpura	R. II. b. ...	2,422 1 0	5,673 7 6	8,095 8 6	7,203 6 9	892 1 9	
Parbatsar	R. II. c. ...	28 5 0	102 7 9	96 12 9	65 14 3	286 14 6	
Pali	R. II. d. ...	72 8 0	8,371 5 4	8,678 13 4	5,397 13 4	3,080 1 0	
Jetaran	R. II. e. ...	41,163 4 9	4310 2 3	45,817 7 0	31,227 13 9	14,589 0 3	
Kenji Barmer	R. III. ...	...	9 0	9 0	9 0	9 0	
Jodhpur	R. IV. a. ...	317 12 6	2,512 0 3	3,159 12 9	2,258 10 9	901 2 0	
	R. IV. b. ...	...	140 1 0	140 1 0	140 1 0	...	
	R. V. a. ...	...	12 1 6	12 1 6	12 1 6	...	
	R. V. b. ...	...	2 4 0	3 4 0	3 4 0	...	
	R. V. c. ...	122 9 0	2,824 3 10	2,946 12 10	2,767 15 10	178 13 0	
Geology	...	16,554 5 6	16,454 5 6	16,454 5 6	16,454 5 6	6 2 0	
Arboriculture	...	169 4 3	1,617 5 6	1,606 9 9	1,472 6 6	364 3 3	
Agriculture	...	...	1,826 15 0	1,826 15 0	1,826 15 0	...	
Fuel and F. R.	...	...	2,299 11 8	2,299 11 8	2,299 11 8	11 0 0	
Total ...	51,742 0 0	1,03,236 2 11	1,54,078 2 11 12	1,55 4 0	2,592 14 11		

Annual Form No. 65.

Forest Department Marmar State Financial Results for the year 1916-17.

(69)

Range	TIMBER AND OTHER PRODUCT REMOVED FROM THE FOREST BY RAJ AGENCY.		OTHER REVENUE.		Formation and protection and improvement of Forest charges.	Receipts.	Total.	Remarks.
	Receipts.	Charges.	Receipts.	Charges.				
Godhwar	7,748	5,124	8,451	4,287	181	16,289	9,590	
Desuri	2,509	898	5,857	1,780	220	8,366	2,898	
Soyat	3,741	5,984	6,753	3,220	774	10,404	9,978	
Depot Jat	7,138	2,918	91	496	71	7,229	3,485	
Sivare	661	150	1,101	1,609	20	1,762	1,779	
Jalore	306	253	1,213	2,443	141	1,519	2,837	
Jaswantpura	655	232	1,461	1,085	140	2,116	1,457	
Jodhpur	25,787	7,349	29,946	13,606	3,439	55,733	24,394	
Parbatpur	...	...	812	594	7	812	601	
Pali	180	...	678	625	...	853	525	
Luni Badner Line	246	15	89	551	...	335	566	
Jetaran	960	...	275	90	...	1,185	90	
Total	40,931	29,923	56,777	30,284	4,903	1,06,708	58,200	

